

# LOCOMOTIVES INTERNATIONAL

Issue 100 - February / March 2016



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Featuring: ZAMBESI SAWMILLS RAILWAY - VINTAGE CHINESE ELECTRICS  
PARAGUAYAN SENTINELS - SPAIN - INDIA - **AND MORE!!!**

# ON SHED

## LANCE KING R.I.P.

As we closed for press, the sad news reached us of the passing of Lance King on January 2nd. Lance was the founder of the Continental Railway Circle, and the Editor of the *Continental Railway Journal* (one of the precursors of the modern LI) throughout its time of publication. A fuller obituary will appear in Issue 101.

## CENTENARY ISSUE

We've done it! This is Issue 100 of *Locomotives International*. Our profuse thanks go to all our contributors, subscribers, advertisers, readers and other supporters! Here's to the next 100 issues!

## BINDERS

Please accept our apologies for the delay in obtaining these. They are now on order, and will have a selling price of £10 including UK p&p. They are sized to fit the "new" (A4) LI. Whilst they can physically contain the shorter and slightly wider "old" LI (pre-Issue 82) these will have a slightly looser fit due to the excess length on the binder.

## LOCOMOTIVE A VAPORE IN ITALIA

Volume 3 of this series, which is undoubtedly the definitive reference work on Italian steam locomotives, has been much requested and is now in stock. Those of you who have already browsed the back cover will notice that volume 4 is in stock also! We have also stocked an extremely limited number of volumes 1 and 2 for the benefit of those readers who missed out when they were first stocked. Volumes 1 and 2 will be available to telephone / email customers only, first come first served!

## FUTURE BOOKS

Sharp-eyed readers will note that we now have no fewer than FOUR new books at the printers. We have a number of other titles with authors at various stages of development, so the 'production line' for international railway books is well and truly up to full speed! If there are any budding authors among our readers, they are welcome to make contact via the Editor. We will also be publishing more books on UK subjects during 2016...

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Written contributions are, of course, welcome on all subjects. All material (written or photographic) is submitted at the contributor's risk. Mainline & Maritime cannot be held responsible for any loss or damage outside their control.

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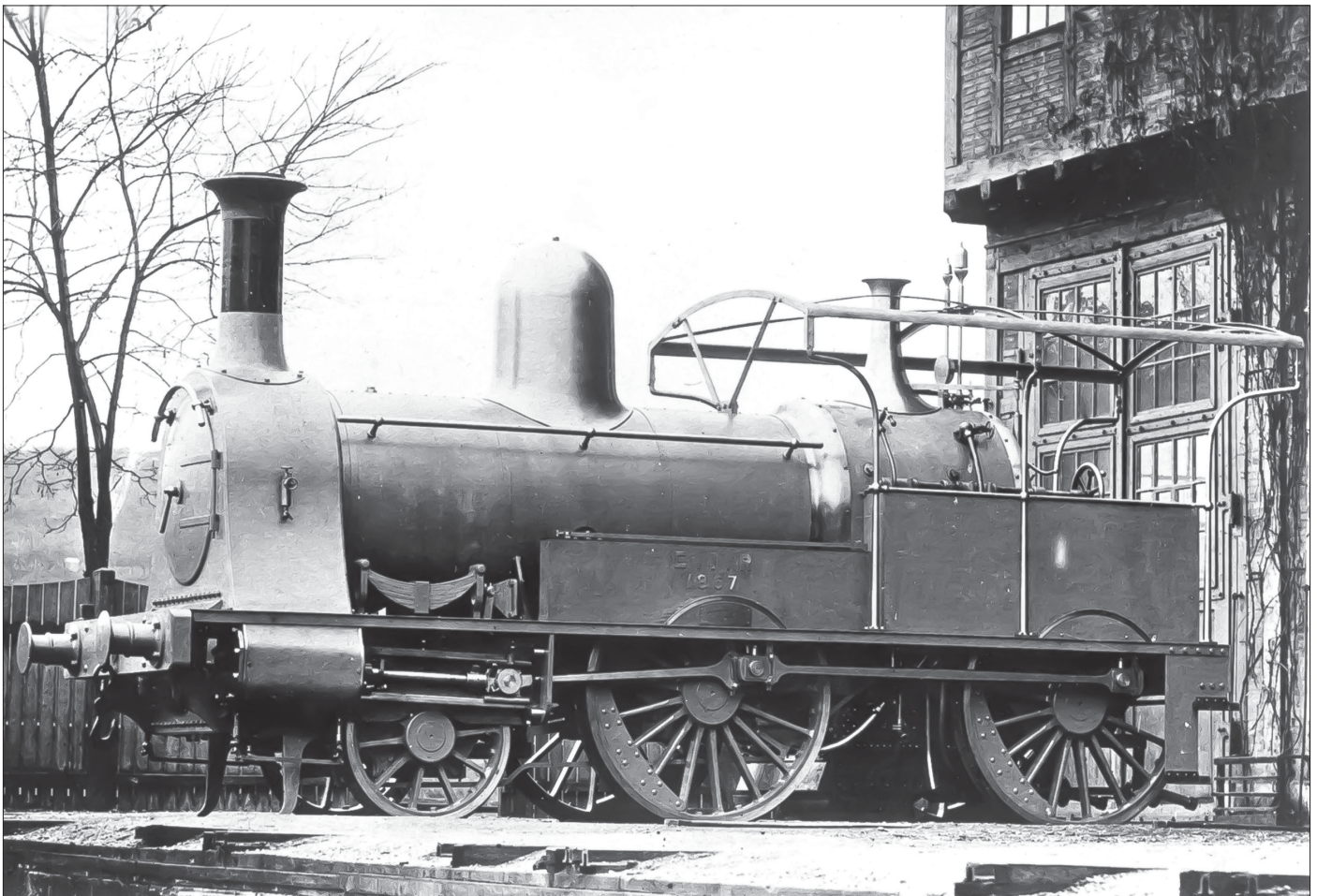
On day 12 of its marathon tour of New Zealand's South Island  
(30th October), Ab 608 exits the Taramakau River road/rail  
bridge at Camerons on the Hokitika Branch. This is the only  
road/rail bridge still in use on the KiwiRail network. The other  
two road/rail bridges on an operational railway in New Zealand  
are both on the Taieri Gorge Railway (see page 14).

*Robert Sweet*



# GENERATIONS OF INDIAN STEAM

Photographs from the Keith Chester Collection  
Captions by Andrew Shimmin



**Above:** East Indian Railway (EIR) E Class 2-4-0T No 333 was built by Esslingen in 1867 as a 2-4-0 (and originally numbered No 463). The EIR was one of the earliest Indian railways, opening in 1855, and saw itself as India's premier line. It linked Calcutta with Delhi via the hugely populated Gangetic plains. By the 1860s the 2-4-0 was the preferred passenger type – the E Class dominated the EIR for many years, and were constructed by over a dozen builders. No 333 and five others were converted to tank locomotives in the 1890s.

**Upper Right:** Great Indian Peninsula Railway (GIPR) C5 class 4-4-0 No 59 awaiting departure with a mail train from Bombay Victoria – surely one of the most impressive stations in the world. By the 1890s the 4-4-0 was the main express type, and the GIPR's C5 class were typical examples, although with the very large cab window which was a feature of this railway. No 59 was built by Neilson in 1898. The C5 class were given Belpaire fireboxes in the years leading up to the Great War, becoming C1 class, so this photograph is probably from the first decade of the 20th Century. The GIPR main lines led from Bombay towards Delhi, Calcutta and Madras, but No 59 would take the train only to Kalyan, 33 miles away, at the foot of ferocious “ghat” inclines where at least two eight-coupled tank locomotives would take over.

**Lower Right:** Locomotive manufacturers in Britain were frustrated by the multiplicity of designs they had to build, often in small numbers, for essentially similar requirements for the different Indian Railways. To counter this a committee of the British Engineering Standards Association (BESA) prepared standard designs from 1903 which were extremely successful – the committee included Robinson, Dean, McIntosh and Webb. Bombay, Baroda & Central Indian Railway (BB&CIR) H Class 4-6-0 No 339 was built by North British in 1909 as a typical standard “heavy passenger” mail engine to the BESA design. The BESA 4-6-0s were superb engines, and after the relative failure of the IRS pacifics (see below) they remained on front-line express duties until after WW2. The BB&CIR rebuilt some of their H class locos with Lentz rotary valve gear, as shown here. No 339 is probably on a Bombay to Delhi express.





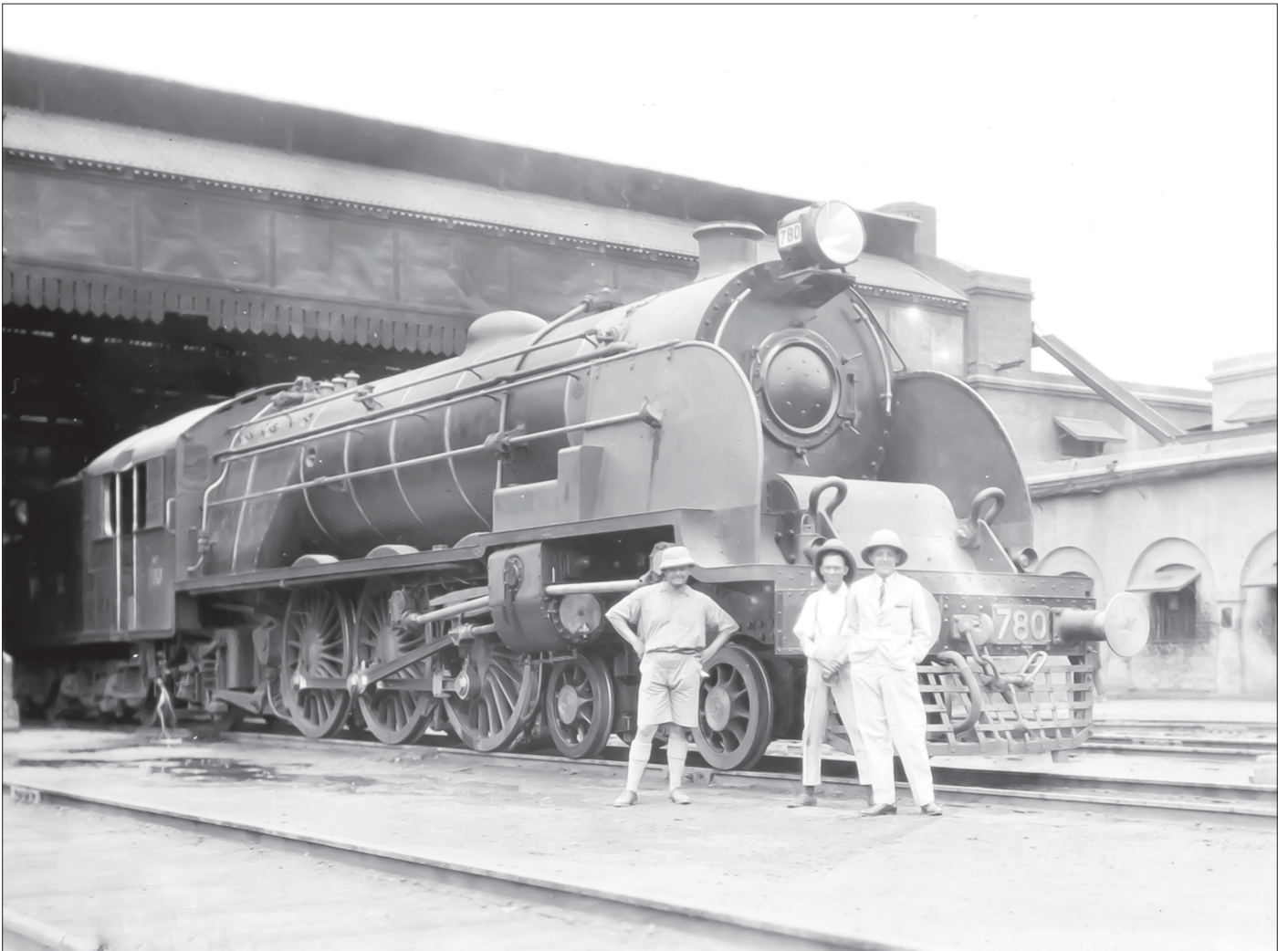


**Above:** The Bengal Nagpur Railway (BNR) was a very independent-minded organisation, with its own views on locomotive design. The BNR generally ignored the BESA standards, and its highly efficient locomotive stock included de Glehn Compound Atlantics and Pacifics from North British and four classes of Beyer-Garratts. One standard design the BNR did adopt was the BESA inside-cylinder 2-6-4T, which was used by many Indian railways for local services. This example was built as BNR FT Class No 324 by Beyer Peacock in 1907, but was later superheated and given Lentz oscillating cam valve gear, as shown here, becoming class FTC. Other rebuilt examples had their tanks extended right to the front buffer-beam, giving them a rather brutish appearance.

**Upper Right:** By the 1920s the cost of importing British coal was becoming prohibitive, and there was a switch to coal from Eastern India, which had a lower calorific value. A new standard series of designs (called Indian Railway Standards or IRS) was prepared with wider fireboxes, including the front-line express type, the XC Class 4-6-2. North Western Railway (NWR) XC Class No 241 was the second NWR example, built in 1928 by Vulcan Foundry but renumbered No 1841 into the main NWR XC series about 1930. Unfortunately the XC and related XB class pacifics were poor steamers and very bad riders – after a very bad accident in 1937 on the EIR a committee including W.Stanier and E.S.Cox of the LMS travelled to India to investigate and recommended major modifications. Other IRS designs were much more successful.

**Lower Right:** Partly due to the problems with the XC class, several Indian railways built small numbers of express locomotives to non-Standard designs in the 1930s. On the NWR this included four four-cylinder pacifics classified XS, all slightly different. Nos 760 & 761 were classified XS1 and had Caprotti valve gear, while Nos 780 & 781 had Lentz gear and were XS2. Meanwhile the even numbered examples of both classes had the inside cylinders at 135° to the outside cylinders, while No 761 & 781 had the usual 180°. All were built by Vulcan Foundry in 1930, and were very successful on the crack Delhi–Lahore–Karachi expresses of the NWR, continuing until dieselisation in Pakistan in the 1960s. NWR XS2 class No 780 is shown at Lahore MPD, probably in the early 1930s as the smoke deflectors were later removed.







# VINTAGE ELECTRIC TRACTION IN CHINA

by Michael Reilly

Two of Dalian's Witt designed, Nippon Sharyo built DL3000 series trams at the southern terminus of 'bus route 201', Dalian 4 May 2014. The outline of one of the new articulated trams can just be seen behind tram no 7-2277 on the right.

*All photographs by the Author*



Today's visitors to China rarely fail to be impressed by its modernity: the steel and glass skyscrapers in the cities, the growing high speed rail network, the maglev train between Shanghai and Pudong airport and much more. Even the steam locomotives still in use and familiar to LI readers, fall within the 'modern' category, the majority of them having been built in the 1980s, long after regular steam locomotive manufacture ceased elsewhere. So it comes as a surprise to many observers to learn that electric traction from the early 1940s and even before can still be seen in regular use, or that in some cases steam locomotives have been replaced by older electric locomotives. Seeing these heritage pieces in action is usually straightforward, indeed the princely sum of just CNY1 (10p) will secure ready access to the oldest of all, as that is the fare for a ride on route 201 of Dalian's bus network. But this 'bus line' is in reality served by trams dating from the mid-1930s, still in everyday use 80 years later!

The origin of these historic lines lies in Japan's occupation, first of the strategic ice-free port of Dalian, or Dairen, which it took from Russia after the 1904-5 war between the two countries, and then in the 1930s of all Manchuria. Even before this formal occupation, Japanese companies and organisations had been

big investors in the region, keen to exploit its abundant natural resources, especially coal and iron ore. Much of this was driven by the quasi-private South Manchurian Railway Company, whose SL class of locomotives formed the basis for China's later SYs and many of whose other locomotives remained in use, re-classified, on China Rail into the 1990s. The South Manchurian's headquarters were in Dalian, from where its main line ran north east to the city of Shenyang, then known as Mukden. Following the Japanese takeover, Dalian was developed as a model town with wide boulevards and comfortable villas for its expatriate population. As part of this it was also one of the first towns in China to benefit from a tram system, which was opened in 1909, by a subsidiary of the South Manchurian Railway.

As exploitation of Manchuria's resources got under way, so Dalian grew in importance as the key port giving access to the region and the tramway grew in line with the town. In the 1930s a series of new tramcars were supplied from Nippon Sharyo in Japan to the design first introduced by Peter Witt in Cleveland, USA, with a front entrance and central exit. At the end of World War 2, Dalian was initially re-occupied by Soviet troops before being eventually returned to China. Having been modernised





**Above:** A series DL3000 tram heads south away from the railway station in Dalian, 4 May 2014.

**Below:** The interior of a DL3000 series tram, Dalian 4 May 2014. Thin seat cushions and electronic ticket reading machines are the only obvious signs of modernisation.

quite recently, the tramway system was in relatively good shape and was to continue to be the mainstay of public transport in the city throughout the 1950s to 1970s, as China turned in on itself during the chaotic years of Mao Zedong's rule. From the end of the 1970s, as China started to open up once more, so the tram system started to retrench, as in most other Chinese cities and in line with practice in many other countries in earlier decades. Nonetheless, the remaining lines still provided a considerably more comfortable and reliable form of transport than most Chinese buses of the 1980s or even 1990s. By the early 21st century, the system was down to just two lines and plans were well underway for a metro system for the ever growing city, which by now had a population of several million. The decision was taken to upgrade one of the remaining lines to a modern light rail system, with the track running on a reserved carriageway. A series of articulated, low-floor trams bearing more than a passing resemblance to a then new Siemens model were introduced and some older trams were sold to the city of Changchun. For reasons which have never been entirely clear, however, one route was left largely unmodernised, running for the most part down the middle of streets through the oldest part of the city. For this route, 27 of the old 1930s trams were given a major overhaul and put back in service, where they continue to operate today in conjunction with some of the new articulated cars. They may not be the oldest trams in daily service in the world, that accolade probably goes to Milan's series 1500 cars, first introduced in 1928 and up to 100 of which are still in service. But they are not far behind and remain substantially as built, the few concessions to modernity including safety glass in the windows and thin cushions on the wooden seats. To listen to the clicking of the driver's control handle and whirr and whine of the motors as a tram rattles over uneven track in front of a modern skyscraper of steel and glass is both a rare and an incongruous experience.





North of Dalian, a huge seam of coal runs almost due west to east across Manchuria and beyond. This comes close to the surface in a number of locations, several of which were subsequently developed as major opencast coal mining operations. Some of their names will be familiar to rail enthusiasts as they are also among the last remaining industrial steam sites: Pingzhuang, Fuxin and Fushun. Pingzhuang lies in Inner Mongolia, not Manchuria and exploitation of the coal reserves here started later. But large scale operations at both Fushun and Fuxin started at an early stage and before long the two were vying with one another to be the deepest and largest open cast coal mine in the world. As the open pits grew in size, so railways into them became essential as the only feasible way of bringing out the volumes of coal being mined. The combination of steep gradients out of the pits, heavy trains and low speeds made electric traction an attractive and sensible option. The network at Fushun was the first to be so equipped. In due course a huge industrial complex embracing steel and chemical works as well as the coal mine was to grow here and the railway system was developed to serve them all, as well as to provide commuter trains for the thousands of workers. This was electrified at 1500 Volts dc, which was to become the standard for electric industrial lines in China. Among the earliest locomotives supplied was a fleet of Bo-Bos, based on a 1929 design that externally is very similar to the locos designed for the North Eastern Railway's main line electrification project in the UK.

It is a tribute to the robustness of both the original design and even more the quality of original construction that a small number of these locomotives, built and delivered in the early 1940s, remain in service on works trains at Fushun today, notwithstanding the rigours of climate (in the course of a typical year Manchuria sees temperatures varying between plus and minus 30 degrees Centigrade), north China's notorious pollution, and operating conditions.

Following the end of WW2 and the victory of the Communists in the subsequent civil war, China turned to the USSR for outside advice. This included a Stalinist emphasis on the development of heavy industry which in turn meant expansion of the coal mining industry. The lines serving the mines at Fuxin, Pingzhuang, and elsewhere, as well as at several steelworks, were electrified in this period. China was still without any domestic capability for building electric locomotives but in the politics of the 1950s there was no question of ordering any from Japan. Instead, China turned to its 'fraternal socialist allies,' in this case the then German Democratic Republic and Czechoslovakia. In the former, the old electric locomotive works of AEG at Hennigsdorf had been nationalised as the LEW combine following the communist takeover. In the early 1950s the works produced an 80 tonne Bo-Bo design for industrial use of which 60 went to China, all but two of them to the system at Fuxin. These were the first of a total of 367 locos that were to go from the Hennigsdorf works to China over the next three decades. These early models, designated IV KP1, all of which have now been withdrawn from use, were followed by a similar but heavier (100 tonne) Bo-Bo. This class, the EL2, was arguably Hennigsdorf's most successful model, remaining in production until 1987. More than 1300 were produced, of which 186 went to China, the first in 1957, the last in 1984. Over 30 were sent to Pingzhuang where opencast operations were in full flow by the early 1960s but the largest number, around 60, went to the large steelworks at Anshan, between Shenyang and Dalian.

Before the war AEG had designed a heavy (150 tonne) 3 unit Bo+Bo+Bo for heavy haul duties. A handful of these were made post-war by LEW but it then modified the design around 1960 to a two-unit version. Designated EL1, the class does not appear to have been particularly successful, possibly because it was simply too big and too heavy for most industrial requirements. Of those that were produced most were exported, principally to the Soviet Union and China, which received 121. More than 30 went



The LEW builder's plate on EL2 7218 at Qian'an steelworks, 14 January 2012.

to Fushun, a similar number to Fuxin and the rest elsewhere, including Anshan.

Despite the apparent lack of success of the EL1 class, it must have met a need in China for a number of similar Bo+Bo+Bos, but composed of 3 units like the original AEG design, were supplied to the Fushun system by Skoda in Czechoslovakia. Under Mao Zedong, however, China was far from satisfied with importing locomotives and started trying to produce similar locomotives itself. The ZG150 class, produced by Xiangtan in Hunan and very possibly originally reverse-engineered from the EL1, can be seen in service at a number of sites across China and has almost certainly replaced all the EL1s. A domestic version of the EL2, the ZG80, has been in production rather longer. This is based on the earlier Bo-Bo, the IV KP1 and domestic manufacture started as early as 1958 – not long after LEW started turning out the EL2.

Nevertheless, a number of EL2s remain in use. The most unlikely location must surely be Jixi, in the far north east, close to the Russian border. This was one of the last strongholds of industrial steam, which lasted here until early 2012. By that year declining production from the open cast pit at Pingzhuang had led to the closure of the electric system there, road trucks now taking the much diminished output direct from the pit. At the time Pingzhuang still had a fleet of over 30 EL2s, at least eight of which were sold second hand to Jixi, which had decided to electrify its network, just as systems elsewhere were converting to diesel traction or road haulage. As the remaining SY steam fleet at Jixi had all been built in 1985 or later, this was an unlikely example of old replacing new!

Understandably, most enthusiasts visiting China in recent years have done so to see the remaining steam power. Old electric traction, whatever its age, has been of secondary interest. As a result, information as to the full extent of remaining vintage locomotives is somewhat sketchy. Fushun certainly has the best variety with its ancient Japanese ED85s, early 1960s Skoda built 37Es - still used on coal trains, together with more recent ZG150s - and at least one EL1 on display at its museum. In addition to Jixi, EL2s can still be seen in action at the steelworks at Qian'an near Tangshan and possibly at Hegang in Heilongjiang. The newer, domestic built ZG150s and ZG80s are still common, forming the mainstay of services at Fushun, Qian'an and elsewhere.

For anyone keen to find out more, the Industrial Railway Society's publication on Industrial Locomotives of the PRC, compiled by Rob Pritchard is a good starting point. While a visit to China solely to see vintage traction may seem a bit much for all but the most committed, it could easily be combined with time spent at some of the remaining steam sites to offer a varied and rewarding visit.

#### Acknowledgements

I am most grateful to Nicholas Pertwee for help and additional information in preparing this article



**Upper:** A Chinese built ZG150 articulated Bo+Bo+Bo on shunting duties at Qian'an, 14 January 2012. Externally the class bears a close resemblance to LEW's EL1 on which it was modelled.



**Centre:** A ZG80 Bo-Bo shunting at Qian'an, 14 January 2012. Although superficially similar to the EL2, this is actually based on LEW's earlier IV KP1 class. Note the open grille doors, presumably to prevent overheating, despite the external air temperature hovering below the zero mark.



**Lower:** A ZG150 hauling a coal train on the Fushun Mining Railway, 3 May 2014. Side collectors as well as pantographs are a standard feature on most Chinese industrial electrics, allowing current to be collected from a line to the side of the track where loading gauge restrictions rule out overhead catenary.





# ARCHIVE FOURSOME STEAM ON THE ERZBERGBAHN

photographs by J A Berry



**Above:** I understand that by the time of my first visit to Vordernberg in October 1977, the Class 197 0-12-0 RTs were rarely seen on line work. I consider myself particularly lucky therefore that this was the first picture I took! 197 301 is banking the 09.47 'empties' from Vordernberg to Erzberg just after leaving Vordernberg Markt on 12th October 1977.

**Below:** Later the same day, the same locomotive is banking the first 'half-train' of full wagons at Feistawies on return from Erzberg to Präbichl. This locomotive is now preserved in the Vienna Railway Museum.







**Above:** A return visit a couple of months later found 97 207 with 97 204 banking approaching Prabichl on 09.47 'empties' from Vordernberg on 19th December 1977.

**Below:** My favourite photograph of the system is this view of 97 201 with 97 203 banking, leaving Glaslbremse on the 14.10 empties from Vordernberg on 13th October 1977. It was a race between the setting sun and the locos taking on water at Glaslbremse! 97 201 returned to Vordernberg on 19th November 2008, on long term loan from the Technical Museum in Vienna.





# THE Ab608 CENTENNIAL TOUR

by Robert Sweet



New Zealand's North Island based Steam Incorporated ran a tour of the South Island behind their Ab 608, New Zealand's First World War memorial locomotive PASSCHENDAELE from the 19th October 2015 to the 8th November 2015. Ab 608 was built in the New Zealand Railway's South Island Addington workshops and entered service in October 1915. Ab 608 spent its working life in the South Island and only moved to the North Island when Paekakariki based Steam Incorporated leased the locomotive from the New Zealand Railway & Locomotive Society. The Ab Pacific was the largest class of steam locomotives on the New Zealand Railways numbering 141 members in the class with Ab 608 being the first member of the class. Seven of the class have been preserved of which two are currently operational. The Ab class in the preservation era is probably best known as the locomotive that ran the Kingston Flyer which closed early 2013 and is still awaiting a buyer.

The Ab 608 Centennial South Island Tour train consisted of six vehicles, four wooden 50' Aa carriages built between 1909 & 1912, a 1927 56' steel panelled carriage which is Steam Incorporated's buffet/souvenir/crew carriage and a 1913 50' wooden guards van on lease from the Glenbrook Vintage Railway. The all red train without support vehicles made this consist a recreation of an NZ Railways passenger train from the past. This tour of the South Island could be the last using the North Island based preservation group's rolling stock as KiwiRail now only has one rail ferry across the Cook Strait. The 1983 built ARAHURA was withdrawn from service in July 2015 and has been replaced by a second hand roll on/off ferry with freight now being off loaded from rail wagons onto trailers for the Cook Strait crossing & then

Day 7 of the tour at Hindon crossing, the combined road/rail bridge on the Taieri Gorge Railway. Ab 608 with DJ 3107 & DJ 1227 at the rear. DJ 3107 still has its Traffic Monitoring System (TMS) number that it ended its service with NZ Railways, DJ 1227 has its original number when it entered service with the NZR and has been painted in the colour scheme that was used on the DJs hauling the Southern passenger train between Christchurch and Dunedin when the train was first introduced.

*All photographs by the Author*

reloaded back onto rail wagons. The 1998 built ARATERE is the only remaining rail ferry and when this needs to be replaced it is unlikely to be by a rail ferry. Another issue that faced the tour is the lack of KiwiRail steam certified drivers in the South Island, the same two Christchurch based KiwiRail crew drove and fired most of the tour with the use of a pilot over the lines that they were not certified to drive on. The lack of steam certified KiwiRail crews is a major issue now facing NZ preservation groups that depend on main line access to run their steam locomotives. On two sections of this tour the train was diesel hauled with Ab 608 in light steam due to the unavailability of a KiwiRail steam crew. The only organisation that can run on the current operational KiwiRail network with their own crews is the Taieri Gorge Railway (TGR) who have recently changed their name to Dunedin Railways. The tour utilised TGR crews on the Oamaru to Dunedin section of the tour.

The tour covered all the rail lines in the South Island except for the Ohai branch from Invercargill and the Rapahoe Branch from Greymouth. The Ohai branch is currently in use for coal



**Upper:** Day 5, and Ab 608 is being turned on the turntable at Invercargill.



**Centre:** Day 6, and Ab 608 crosses the combined road/rail bridge at Hindon on the Taieri Gorge Railway. There are only three remaining road/rail bridge in use in NZ on active railways, two on the TGR & one on the Hokitika branch.



**Lower:** Ab 608 departing Dunedin Railway Station on the first shuttle service of the day to Sawyers Bay on day 8.







Ab 608 staged for photos at the mouth of the tunnel from Mussel Bay to Port Chalmers on day 8.

traffic as far as Nightcaps. The Rapahoe branch now sees very little use since Solid Energy closed the Strongman mine. The tour also made two trips on the Taieri Gorge Railway and also visited the 12 km Weka Pass Railway at Waipara.

Day 1 (19th October) - Picton to Christchurch with the first section from Picton to Kaikoura being diesel hauled due to the lack of KiwiRail crew availability.

Day 2 (20th October) - Christchurch to Oamaru.

Day 3 (21st October) - Oamaru to Dunedin utilising a Taieri Gorge Railway crew. The train was diesel hauled between Waitati and Sawyers Bay due to the 1,408 metre Mihiwaka Tunnel being in this section. Since the Pike River mine disaster which killed 29 coal miners in 2010 the longer tunnels on the KiwiRail network are now subject to strict rules and steam locomotives cannot be worked through this tunnel.

Day 4 (22nd October) - Dunedin to Invercargill and then out to Bluff. The line to Bluff was one of New Zealand's first railways opened in 1867 and was standard gauge. In the 1870s 3'6" was set as the NZ national rail gauge, with the Bluff line being converted in December 1875.

Day 5 (23rd October) - Invercargill to Dunedin.

Day 6 (24th October) - A special photographers train consisting of six Taieri Gorge Railway wooden 47' 6" A class carriages built between 1912 and 1916 & a 1937 50' wooden guards van with Ab 608 to Middelmarsh and return. The Steam Incorporated wider bodied wooden Aa carriages are too wide at roof level for some of the tunnels on the TGR. The train had to be hauled by one of the TGR's DJ diesels from Dunedin to North Taieri as the fireman on the train was not certified to operate on the KiwiRail network. At North Taieri the DJ was taken off and Ab 608 then hauled the train to Middelmarsh over the TGR's own railway. On the return trip the DJ was again added at North Taieri prior to entering the KiwiRail network back to Dunedin Railway Station. The DJ diesel

locomotives of the TGR were built by Mitsubishi, entering service from 1968 to 1969 and were the diesel that replaced steam in the South Island. The last DJ was retired from NZ Railway service in 1991. The DJ is the only diesel locomotive to have used the Bo-Bo-Bo wheel arrangement on NZ railways. Two electric locomotive classes have this wheel arrangement, the English Electric built Ew class used on the Wellington electrified network from 1952 to 1983 and the 1998 Brush built EF class still in use on the Te Rapa to Palmerston North electrified section the North Island main trunk railway.

Day 7 (25th October) - Another run up the TGR for the public to Middelmarsh, this time two DJ locomotives were also on the train, being transferred to the rear of the train while running on the TGR line. The 13 vehicle train consisted of 1 observation guards van, 1 bogie box wagon used to house the generator that powers the carriage lights etc. and a mix of 11 steel panelled and wooden carriages, two of which were painted in the newly branded Dunedin Railways blue colour scheme. These two are the only carriages painted so far in this colour scheme.

Day 8 (26th October) - Ab 608 ran shuttle trains for the public from Dunedin to Sawyers Bay with the last train of the day going to Mussel Bay on the Port Chalmers Branch. When running around its train at Mussel Bay Ab 608 ran through the short tunnel that takes the line to the port & posed for photos at the portal. Taieri Gorge Railway run their trains through this tunnel and on to the wharf to pick up passengers off cruise liners to take them for a ride through the Taieri Gorge.

Day 9 (27th October) - Dunedin to Oamaru with the train having to again be hauled by TGR's DJ diesels from Sawyers Bay to Waitati through the Mihiwaka tunnel.

Day 10 (28th October) - Oamaru to Christchurch.



Day 11 (29th October) - The train travelled over the Midland Line from Christchurch to Greymouth. This day was very wet. Passengers were not able to travel through the Otira tunnel and had to be bussed over Arthur's Pass. The train was towed through the tunnel from Arthur's Pass to Otira by the Otira based DXC bankers. With the train being operated by KiwiRail they only allow locomotives fitted with fire suppressant equipment to now pass through the Otira tunnel, plus they will not let passengers in wooden bodied carriages be carried through the 8,554 metre long tunnel. KiwiRail have withdrawn all their passenger stock with wooden framing leaving no passenger stock available for hire to preservation groups who do not have their own main line certified carriages. The Ab was towed through the tunnel after being placed at the rear of the train as due to the cowcatcher length of 608, the locomotive could not be coupled directly to the diesel. The Otira tunnel is on a 1 in 33 grade and the Otira end of the tunnel has extractor fans and a door that closes once the train enters the tunnel. The extractor fans clear the diesel fumes plus drag fresh air from the Arthur's Pass end through the tunnel ensuring the diesel locomotives receive enough air to haul the train up the grade. The Tranz Alpine that traverses this route also now has to have locomotives fitted with fire suppressant equipment at each end of the train when travelling through the tunnel. This is in case of a breakdown in the tunnel. These additional safety requirements are all the result of the Pike River mine disaster mentioned earlier.

Day 12 (30th October) - The train travelled over the Hokitika Branch from Greymouth in the morning and then ran a short trip for the public from Greymouth to Stillwater (the junction with the Midland and Westport lines) and return.

Day 13 (31st October) - Greymouth to Westport, travelling through the scenic Buller Gorge.

Day 14 (1st November) - The train travelled from Westport along the branch to Ngakawau the site of Solid Energy's Stockton mine coal loading facility. When running Ab 608 around the train at Ngakawau the locomotive was run to the end of the back shunt that originally continued on to the Charming Creek Coal mine. This old railway formation is now a walkway maintained by the Department of Conservation and a number of relics from the Charming Creek railway and the mine can be viewed. Due to a maintenance shutdown of the Midland Line the next day the tour train ran from Ngakawau to Otira. The passengers were then bussed back to Greymouth while the tour train was towed through the Otira tunnel to Arthur's Pass to stable.

Day 15 (2nd November) - The passengers were bussed from Greymouth to Arthur's Pass with the train not leaving Arthur's Pass until 4.00 pm after KiwiRail's Tranz Alpine departed Arthur's Pass. The Tranz Alpine had terminated at Arthur's Pass on this day due to the maintenance shut down. The tour train ran to Christchurch and then to the Weka Pass Railway at Waipara, arriving late at night.

Days 16 to 20 (3rd to 7th November) - Were spent at the Weka Pass Railway, Waipara north of Christchurch. Days sixteen and nineteen were rest days for the Steam Incorporated crew. On the 4th and 5th November photo charters were run on the Weka Pass Railway double heading with their A 428 (A & G Price, Thames 1909 4-6-2). The A class were the forerunner to the Ab class. This was the first time in the preservation era that an A and Ab class Pacific locomotives had operated together. The train consisted of Steam Incorporated's tour train consist on both days even though the event was advertised as having different consists on both days. The weather on the first day was not the best and the second day was fine with some different photo locations that made up for having the same consist. Two trains were run each day, the morning train with no passengers was a training run for the Steam Incorporated locomotive crew, with the train being able to be photographed from the road and the afternoon train with



Ab 608 departs from Timaru after a service stop on day 10.

passengers and photo stops. On the second day a night run was also made. The first trip each day both locomotives were turned on the turntable at Waikari, on the second trip only the A was turned with the locomotives coming back down the pass tender to tender which sped up the turnaround time at Waikari. Saturday 7th November the Weka Pass Railway was open to the public with Ab 608 and A 428 double heading a 7 total train of their own steel panelled passenger stock plus two of Steam Incorporated's Aa carriages. Both trains were well supported by the public. Before the trains commenced running a short memorial service was held with Ab 608 PASSCHENDAELE in the background.

Day 21 (8th November) - Was to be steam hauled from Waipara to Picton but on the afternoon before the trip was due to run, KiwiRail advised that there was no fireman available and the train was hauled by DXB 5080 with Ab 608 in light steam with a runner wagon between the locomotives. The train departed over an hour late but arrived in Picton ahead of schedule. This last section of the tour in the South Island was lightly loaded.

Ab 608 ran well and no issues were encountered with the locomotive on the tour. The well organised tour was a credit to the Steam Incorporated organisers and members who staffed the train and looked after Ab 608.





**Upper:** Ab 608 traversing the Buller Gorge. Road and rail are on either side of the Buller River at this point. Day 13 – 31 October.



**Centre:** Ab 608 at the very end of the Ngakawau branch, the road by the railway line leads up to the start of the Charming Creek walkway which is the old formation of the Charming Creek Coal mine railway and is stated to be one of the best bush walks on the West Coast. Relics from the railway and coal mine can be seen on the walk.

**Below:** Arthur's Pass on Day 15 (2nd November). DFB 7241 and DXC 5425 on the Tranz Alpine and Ab 608 with the tour train on the other platform awaiting departure. Ab 608 will follow the Tranz Alpine which terminated at Arthur's Pass on this day due to a track maintenance shutdown. DFB 7241 was built by General Motors, Canada entering service as DF 1660 in 1979. Between 1992 and 1997 the DF class were rebuilt with a 2,400 hp turbocharged diesel engine and classed DFT. Those members of the class fitted with the Brightstar engine management system are now classed as DFB.







**Above:** Ab 608 and A 428 doublehead the special along the Weka Pass Railway on Day 18 (5 November).

**Below:** Day 21 and journey's end, as DXB 5080 and Ab 608 arrive in Picton. The train was conveyed across the Cook Strait a few days later.





# AROUND THE CONTINENTS

## with the Continental Railway Circle

Contributions for this section should be sent to the Editorial Office, with the following exceptions:

- Norway, Portugal, Spain, Sweden - John N Bennett, c/o 10 Fitzroy Road, Swindon, SN1 4DU. EMail: JohnNBennett@hotmail.com
- Southern Africa - John Middleton, c/o Editorial Office EMail: johnmiddleton3401@gmail.com
- North & Central America - Bransom Bean, Rock Cottage, Poyll Vaaish, Castletown, Isle of Man, IM9 4PJ. EMail: bbean@finefocusing.com
- South America - Lionel Price, 9, Liverpool Road West, Oswestry, Shropshire, SY11 1PE. EMail: jldprice@btinternet.com

Contributions which are primarily photographic in nature should all be sent to the Editorial Office to give the best choice of material for covers and the World Steam photo gallery etc. Similarly historical articles and features should be sent to the Editor. The Editor's contact details are:

Iain McCall, Mainline & Maritime, 3 Broadleaze, Upper Seagry, near Chippenham, Wiltshire, SN15 5EY. EMail: iain@mainlineandmaritime.co.uk

## AFRICA

### INTERNATIONAL (TANZANIA - ZAMBIA)

#### Tazara

In late November 2015, local media reported the arrival of four additional CSR Qishuyan built type SDD20 Co-CoDE with 3000 HP General Electric engines, the new locomotives have detailed differences to the first order for six, they are numbered DE 3007 – 3010. The order also included 18 passenger coaches and the total value was quoted as US \$ 22.4 million funded by an interest free loan to the Governments of Tanzania and Zambia. The media reports also stated that the new locomotives only increased the main line locomotive stock from 12 to 16 main line locos. Given that 10 of these are presumably the SDD20, it implies very few older GE U30C or Chinese CKD8B locomotives remain serviceable.

### MOZAMBIQUE

#### CLN (Corredor Logistico Integrado Nacala)

This multi-billion dollar project appears to be facing significant challenges, caused largely by the current state of the coal market with its depressed prices. Vale, who are developing the project have also had technical problems with the partial collapse of a coal loader at Nacala during 2015. During November 2015, trains were running with 2 locos and up to 60 wagons at a reduced speed and frequency. On 17th October there was a test with 2 locos + 42 wagons + 2 locos + 42 wagons from Nacala to Cuamba. However, in the past year only 192,000 tonnes of coal have been transported of which 167,000 were stockpiled at Nacala terminal as of October. This is equivalent to a frequency of about one train a week. The majority of the 85 locomotives delivered so far are in still in storage.

### SOUTH AFRICA

#### Ceres Railway

Passenger operations started at the end of November 2015 in time for the busy Cape tourist season. Currently the sole working locomotive is oil-burning 4-8-2 class 19D No. 3321 and initially trains comprised four coaches painted in an attractive (but non-authentic) maroon livery with a gold stripe. Rolling stock includes former Union Limited clerestory roofed vehicles, dining car SELATI and more modern Union Carriage steel stock. The next loco will be 19B 1412 whose overhaul at Voorbaai is approaching completion. A freight test train has also been operated using TFR Class 35 diesels and the Ceres Railway Co is saying that it intends to operate freight traffic between Ceres and Cape Town, primarily serving the extensive fresh fruit, dried fruit, fruit juice and mineral water industry in the Ceres area. Full details can be found on the company's website [www.ceresrail.co.za](http://www.ceresrail.co.za)

The passenger train is advertised to run twice a day on selected Saturdays in 2016 (2, 9, 23 January; 6, 20 February and 5, 19 March). Departures are at 09.30 and 14.30 from Demeter (next to the Golf Club in Ceres – about 135 km north of Cape Town), stopping at the Waverley Hill wine estate at Waveren (for those who want to hop off for a wine tasting). The train continues to Wolseley yard, where it turns on the triangle before heading back. Total trip time is about 2.5 hours.

The co-founders of the Ceres Rail Company are Derick du Toit and Simon Beckett who also own the Ceres Golf Club. They have said that they wish to extend the present trip to run the full length between Wolseley and Prince Alfred Hamlet, in March 2016 they also plan to start a Cape Town to Ceres train. These plans also include a station at the V&A Waterfront in Cape Town.

#### Patons Railway

This 2'0" gauge operation based at Ixopo in Kwa-Zulu Natal has managed to negotiate a lease on two TFR Class 91 diesels. 91.006 and 91.007 arrived during November 2015 and are already in use on the former Ixopo – Madonela branch. It is hard to believe that these units are now 43 years old and thus qualify as "heritage diesels". Steam is not being abandoned though and the restoration of NGG16 class No. 116 is progressing well. Patons now also have NGG16 No. 156, the final steam locomotive built for SAR in 1968, although this is reported to be in poor condition including a bent frame and a condemned boiler.

#### Transnet Freight Rail (TFR)

The first photograph of a class 45 diesel appeared in Chinese media in late December 2015. The locomotive appears superficially similar externally to the GE Class 44, especially the cab which when viewed head on is almost identical. Technical specifications are still not confirmed but may be similar to the five type SDA2 (MTU engined) locomotives delivered to Pacific National's 3'6" gauge lines in Queensland in 2014.

Older classes in decline include the original 7E class 25kV AC electrics, dating from 1978-79. Most of those in use on the Cape Midland line out of Port Elizabeth have been taken out of traffic and in late December 2015 were stored at Swartkops depot. They have been replaced by around 30 class 34 diesels which are even older dating from 1973-75 but which have recently been completely rebuilt and upgraded. This has led to speculation that the line may be de-electrified although Chinese built Class 20E electric locomotives are working through to Port Elizabeth.





19D 3321 drifts down the spectacular Mitchells Pass on the Ceres Railway, 12th December 2015.

*Peter Rogers*

### Transnet Heritage (TH)

It has only taken some 40 years but in mid-November 2015, Transnet and the SA Heritage Resources Agency (SAHRA) finally agreed on a list of 65 locomotives which are now protected under South Africa's national heritage legislation. In parallel with this, Transnet Heritage has taken over all nine roads of the former Bloemfontein steam depot which will become a new "large engine" railway museum. The existing museum at George will remain open but many of the larger locomotives are unable to reach it due to weight / axle load restrictions, nor could they ever be used in the George area. Several locomotives have already been moved to Bloemfontein and others are following, including those at storage locations such as Krugersdorp (Millsite) depot. The locomotives saved include some of the most important surviving relics such as Class 5B CGR Pacific of 1904 and the "Red Devil" Class 26. Modern traction is not forgotten and includes the first SAR electric locomotive E1 of 1923 and 6E1 E1525 which holds the world narrow gauge speed record of 245 km/h, the latter locomotive is still in use with Transnet Engineering's research facility for test purposes. Additional diesel and electric locomotives will be added in due course and the most recent addition is 14101, the first dual-voltage locomotive built in South Africa and only dating from 1994. The selection of rolling stock in particular is not complete and will be added to as well, such as the first ballast tamper built in South Africa in 1964 which has recently been moved from Millsite to George for restoration. Transnet Heritage has an agreement with Transnet's Bloemfontein Workshops to start cosmetic restoration of the locomotives arriving there. The current complete list of National Collection locomotives and rolling stock now registered as "Heritage Assets" by SAHRA follows but it should be noted that additional locomotives may still be added.

### LOCOMOTIVES

#### Gauge: 4' 8 1/2"

Unclass 0-4-2WT BLACKIE

Cape Town Station

Unclass 0-4-0WT NATAL

Durban Station

#### Gauge: 3'6"

Unclass 0-4-0WT	ZASM 1	Railway Museum: George
Unclass 0-4-0ST	STORMBERG	Railway Museum: George
Unclass 0-6-0ST	PIETERSBURG	Pietersburg Station
A 4-8-2T	103	Railway Museum: George
B 0-6-4T	ZASM 61	Railway Museum: George
B 0-6-4T	ZASM 230	Bloemfontein MPD (stored)
B 0-6-4T	ZASM 242	Pretoria Station
G 4-8-2T	221	Railway Museum: George
H2 4-8-2T	330	Railway Museum: George
1 4-8-0	1247	Krugersdorp: Millsite MPD
3BR 4-8-2	1474	Krugersdorp: Millsite MPD
4AR 4-8-2	1555	Krugersdorp: Millsite MPD
5B 4-6-2	723	Krugersdorp: Millsite MPD
5R 4-6-2	781	Krugersdorp: Millsite MPD
6A 4-6-0	462	Kimberley Big Hole Mus
6J 4-6-0	645	Railway Museum: George
7A 4-8-0	1007	Railway Museum: George
7BS 4-8-0	1056	Railway Museum: George
8D 4-8-0	1200	Cape Town: Salt River Wks
10BR 4-6-2	750	Roodepoort Station
11 2-8-2	933	Bloemfontein MPD (stored)
12 4-8-2	2111	Krugersdorp: Millsite MPD
14CRB 4-8-2	2010	Ashton: Town Centre
14R 4-8-2	1718	Bloemfontein MPD (stored)
15A 4-8-2	1791	Krugersdorp: Millsite MPD
15AR 4-8-2	1850	Bloemfontein MPD (stored)
15CA 4-8-2	2802	Esselen Park - Rly College
15E 4-8-2	2878	Bloemfontein MPD (stored)
15F 4-8-2	2994	Worcester Kleinplasia Mus
16B 4-6-2	805	Railway Museum: George



## AROUND THE CONTINENTS - AFRICA

16D	4-6-2	860
16DA	4-6-2	876
16E	4-6-2	857
19C	4-8-2	2439
19D	4-8-2	3323
23	4-8-2	3300
24	2-8-4	3668
25NC	4-8-4	3410
25C	4-8-4	3511
26	4-8-4	3450
GB	2-6-2+2-6-2	2166
GDA	2-6-2+2-6-2	2257
GE	2-8-2+2-8-2	2260
GEA	4-8-2+2-8-4	4023
GF	4-6-2+2-6-4	2401
GL	4-8-2+2-8-4	2351
GMAM	4-8-2+2-8-4	4070
GO	4-8-2+2-8-4	2575
S1	0-8-0	375
S2	0-8-0	3706
31	Bo-BoDE	31007
32	1Co-Co1DE	32029
1E	Bo-BoE	E1
3E	Co-CoE	E201
4E	1Co-Co1E	E258
5E	Bo-BoE	E259
5E1	Bo-BoE	E615
6E	Bo-BoE	E1525
14E	Bo-BoE	14 101
ES	Bo-BoE	E511

### Gauge: 2'0"

NG15	2-8-2	122	Railway Museum: George
NGG16	2-6-2+2-6-2	131	Port Elizabeth: Humewood (stored)
91	Bo-BoDE	91-001	Railway Museum: George

### Notes:

- BLACKIE, NATAL and ZASM 242 are owned by PRASA. These and ZASM 1 were already classified as National Monuments under earlier legislation.
- All locos at Krugersdorp: Millsite MPD are (Stored), but space precluded the suffix!

## ROLLING STOCK

### Gauge: 3'6"

Private Saloon 5	Railway Museum: George
Private Saloon 14	Railway Museum: George
Private Saloon 18	Railway Museum: George
Private Saloon 49	Railway Museum: George
Private Saloon 51	Railway Museum: George
A-12 Dining Car	134 Railway Museum: George
A-18 Dining Car	168 Railway Museum: George
A-22 Dining Car	196 Railway Museum: George
A-22 Dining Car	199 Railway Museum: George
C-9 1st Class	468 Railway Mus: George (stored)
C-16 1st Class	561 Voorbaai Depot (stored)
B-2 Lounge Car	795 Railway Museum: George
E-13-C 2nd Class	1714 Voorbaai Depot (stored)
K-42 Suburban	4274 Railway Museum: George
M-19 Suburban	5092 Railway Museum: George
M-36 Suburban	5267 Railway Museum: George
O-38 Suburban	5921 Railway Museum: George
P-5 Suburban	6006 Railway Museum: George
Van	94806756 Railway Museum: George
Van	15015335 Railway Museum: George

### Gauge: 2'0"

LS-8	Coach	NG 82	Port Elizabeth: Humewood (stored)
LS-7	Coach	NG 83	Port Elizabeth: Humewood (stored)
AXB-886	Coach	NG 886	Port Elizabeth: Humewood (stored)

In this correspondent's opinion (somewhat biased admittedly as he was one of those advising SAHRA) Transnet Heritage have got the best possible outcome under the circumstances which involved a lot of juggling with the budget available. In particular, the costs of movement (in many cases by road) is high especially for the larger Garratt locomotives.

In conjunction with finalization of the National Collection, Transnet will now want to find a way to dispose of its other remaining steam locomotives, either for sale, preservation or scrap. Unfortunately, many are likely to go for scrap and in early December a list of 38 steam locomotives for disposal was released and it seems the intention is to offer these for sale by auction in February 2016 (there are others which will follow later). This has understandably caused much debate both within South Africa and internationally but really should be considered in the context of the success in finalizing the National Collection. The list is as follows;

Germiston	15F (1)
Kroonstad	15F (2)
Bloemfontein	6B (1); 11(1); 15F (1); 25NC (1); GMAM (2)
Queenstown	4AR (1); 14CRB (1); 15AR (5); 15BR (1); 16CR (1); 19AR (1); 24 (1)
Kilpplaar	15AR (1)
Voorbaai	NRZ 14A (1); NRZ 16A (1); 24 (4)
Epping	15F (1); 15A (1)
Worcester	15F (1); 25NC (2)
Witbank	7A (1); H2 (1); 19A (1); GEA (1); GM (1);
Industrial	G (1)

Many of these locomotives are heavily stripped and are little more than derelict hulks. The most important loco listed is 15A 1970 but it is believed that there are serious offers for its preservation and because of Transnet procurement rules, some locos only appear on these lists as a mechanism to facilitate their sale to Clubs, appearance on the disposal list does not automatically mean scrapping, although for many, sadly scrapping is likely.

## SWAZILAND

There was a head-on collision on 17th December 2015 when Swaziland Railways SR-002 (one of the four 2014 Grindrod built locos) collided with two TFR Class 43s of which the leading loco was 43.023. According to media reports, the Swazi driver of SR-002 who was fatally injured had been on duty for 18 hours. The crash-worthiness of the Grindrod cab has also been questioned as the class 43 nose completely penetrated the cab.

## ZIMBABWE

There will continue to be regular steam operation into 2016. In late December 2015, 15A class Garratt 395 worked north from Bulawayo to Hwange Colliery to take up duties at the mine. Also still serviceable in Bulawayo are 15A class 414, 14A class 519 and 16A class 613. A complete check of Bulawayo shed in late 2015 found 46 steam locos still present although part swapping (including complete engine units) has made identification difficult of many of the derelict locos disappearing into the undergrowth. The new entrant in the coal market, Makomo Resources has built a loading facility at Lukosi Siding south of Hwange, coal trains are worked from there to power stations in Bulawayo, Mutare and Kwe Kwe by ten hired ARTS locos.

*Contributors: Franciscus Boshoff, Tim Gilbert, Paolo Lombardo, Julian Pereira, Chas Rickwood, Mel Turner, Transnet Heritage*





**Above:** The iconic "Red Devil" 26 class No. 3450 makes a dramatic start from Kraankuil on the *Cape Mountaineer* tour in July 1990.

**Below:** Also now part of the National Collection is this complete train – 7B class 4-8-0 No. 1007 (Neilson 1896) trailed by CGR clerestory P-5 type 6006 and two suburbans crosses Knysna lagoon on 23rd August 1996.

*Both: John Middleton*





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# NORTH & CENTRAL AMERICA

## A LITTLE GEM IN RICHMOND

Eclipsed undoubtedly in size by the more famous Virginia Transportation Museum in Roanoke, home of the 611, is the Richmond Museum ([richmondrailroadmuseum.org](http://richmondrailroadmuseum.org)) in the State's Capital city as it tells the story of railroads in the central Virginia area over the past 150 years. But what it may lack in size, it easily makes up for in authenticity and friendliness.

Richmond has a great railroad history once including 6 passenger stations. One of these, Hull Street Station, built in 1915 would see its last passenger train on 16 February 1957 and it might have ended there. Used for storage, the structure deteriorated, being damaged by a succession of floods of the James River. [www.youtube.com/watch?v=2MiC-xOwjic](http://www.youtube.com/watch?v=2MiC-xOwjic)

Hopes for the historic building were raised in 1982 when Southern Railway donated it to the Old Dominion Chapter of the National Railway Historical Society to establish the Richmond Railroad Museum.

Given the poor condition of the station building itself however, a Railway Express car was moved onto the property to serve as the museum until the Chapter raised funds to restore the station. Prospects brightened further in 1996 when the Old Dominion Chapter agreed to provide the Central Virginia Modellers a permanent place for their model train layout in exchange for their help.

Major building renovations finally began in 2009 and the Museum reopened in the station building in November of 2011. The facility, incorporating the restored passenger and freight station, now houses standard gauge rolling stock, other full scale railroad exhibits, Richmond's largest HO scale model railroad and a gift shop. The Station Master's Office is authentic in every way complete with scissors phone, telegraph, orders hoops and a C&O No.3 coal burning "Pot Belly" stove.,

Outside exhibits include an 0-4-0 Porter saddle tank steam locomotive built in 1924 used by the David M. Lee & Co. in South Richmond. Uniquely this little locomotive features both standard knuckle couplers as well as link-and-pin couplers.

The Railway Express heavyweight, head end Car No. 185 built in 1937, saw service on the Richmond Fredericksburg & Potomac Railroad until 1969. It is joined by a Seaboard Coastline box car and caboose.

## MORE TRAINS FOR COSTA RICA

Costa Rica confirmed that it intends to expand San José's urban rail services connecting Alajuela, San José and Cartago, allocating of US\$ 6.58 million for planning.

At the same time the country's 2011-2035 National Transport Plan looks forward to a new 120 kilometre line served by light and medium rail. The masterplan envisages a total investment in this new rail network over the next 20 years of US\$ 1.3 billion.

## TRAILS AND TRAIN CEASEFIRE IN NEW YORK

In what has been called a holiday miracle, on 15 December in a King Solomon-esque decision the Ulster New York County Legislature unanimously voted to approve Resolution 488 bringing to a close, of sorts, a three-year feud over a county-owned railroad right-of-way between the Catskill Mountain Railroad (CMRR) and the Friends of the Catskill Mountain Rail Trail.

If nothing else, both sides agreed to stop fighting and find a way to divide the corridor between them with a "segmented rail

with trail plan" - railroad-only segments, trail-only segments and rail-with-trail segments.

For over 30 years the CMRR operated a tourist railroad on portions of the track in the 37 mile former Ulster & Delaware railroad corridor owned by the New York county of Ulster.

In 2012, trail supporters suggested that CMRR's lease not be renewed when it expires in 2016 to create a hiking, biking, snowmobile and walking trail.

## GUATEMALA AND MEXICO RECONNECTED?

On 29 October it was announced that service on the Tecún Uman San Marcos line would reconnect with the Mexican Compañía de Ferrocarriles Chiapas-Mayab to Guatemala to transport freight by rail directly from Guatemala to Mexico, the USA and Canada. The infamous Mexican train, "The Beast", was to cross into Guatemala at Tecún Uman, taking advantage of estimated savings of 30 to 40% over road transport.

## FUNDRAISING TO RESTORE TWO FOOT LACONIA CAR

Just before Christmas the Wiscasset, Waterville & Farmington Railway (WW&F) Museum began raising funds for the restoration of Bridgton & Saco River Railroad (B&SR) box car No. 67 while beginning restoration work for completion by the national Narrow Gauge Convention in Maine in September 2016.

Built in 1905 by the Laconia Car Company for the B&SR, one Maine's two-foot lines, the car's restoration is estimated to cost approximately \$7,500. The Narrow Gauge Preservation Foundation has offered a 2:1 Challenge Grant and the museum responded with a GoFundMe page at [www.gofundme.com/car67](http://www.gofundme.com/car67).

The WW&F has already has experience in restoring and recreating cars of this type including WW&F boxcar 309 and building a replica Turner Centre Creamery car No. 65 using traditional construction methods. Most of the labour will be performed by the museum's volunteers.

The Laconia Car Company, first named Ranlet Manufacturing Company, built rolling stock for railroads, horse and electric streetcars and interurbans and trolley lines in the still small New England city of Laconia, New Hampshire.

Ranlet Manufacturing Company began in 1844 as a builder of horse-drawn wagons, carriages and stagecoaches, becoming Ranlet Car Company in 1848 when the railroad reached Laconia. By 1869 the company was producing three hundred freight cars annually and in 1870 began producing passenger cars becoming the Laconia Car Company in 1882. By 1893, Laconia Car Company employed over 1000 workers producing 125 passenger cars a year.

It all came to an end in 1928, after one last order for ten cars for the Boston Elevated, Laconia Car Company closed its doors.

## THE OLDEST

One of the most famous US presidents with his name attached to national monuments, city streets and carved into the side of Mount Rushmore, but in terms of US Railroads, "Abraham Lincoln" happens to be the name of the oldest operational passenger car in North America with an interesting historical twist.

Only one of President Lincoln's four sons, Robert Todd Lincoln, survived to maturity to become a lawyer and eventually legal counsel to the Pullman Company (Pullman Palace Car Company) in the process becoming close friends with George Pullman.

Two years after Pullman's death, Robert Todd Lincoln became president of the company and would continue as its Chairman until his own death in 1926. (He would also serve as Secretary of



War and Minister to England.)

During his tenure at Pullman, game-changing technological changes were afoot in the railcar business which saw Pullman Company move from building 60 foot wooden cars to eighty foot, riveted-steel cars with electric lighting and solid cast 3-axle trucks replacing combination wood and steel trucks. These 12 wheel cars became known as "heavyweights".

In September 1910, one of these, an 84 seat Coach 895, was rolled out for Western Pacific Railroad, in 1924 to become Denver & Rio Grande Western 926 and ultimately converted into a business car for the railroad's President.

Inevitably, in 1964 the car was retired and sold to Golden West Rail Tours only to be sold for scrap. But in 1981 it was rescued and eventually a private owner, Curtis Andrews, who completely restored to its original "antiquated elegance" with historically compatible modern systems and renamed the car, ABRAHAM LINCOLN. In 1988 ABRAHAM LINCOLN was placed on the National Register of Historic Places. Now 105 years old, ABRAHAM LINCOLN sleeps eight people.

Although unheard of anywhere else in the world, there are a number of private passenger cars in North America still riding the rails. Many are restored and repaired near St Louis in Madison, Illinois by Gateway Rail Services [www.gatewayrailservices.com](http://www.gatewayrailservices.com) owned and operated by railcar owners.

Information about private railcars and how to charter them is available at:

AMTRAK Private railcar page:

[www.amtrak.com/private-own-rail-cars](http://www.amtrak.com/private-own-rail-cars)

American Association of Private Railroad Car Owners Inc:

[www.AAPRCO.com](http://www.AAPRCO.com)

Railroad Passenger Car Alliance:

[www.rpca.com](http://www.rpca.com)

### FLORIDA BALDWIN MOVES TO NEW HOME

Cummers Sons Cypress' standard gauge Baldwin 2-6-2 No. 104, one of 41 locomotives in Florida today according to [www.steamlocomotive.info](http://www.steamlocomotive.info), was pulled from static display in Leesburg, Florida and hauled 115 miles by truck to the Florida Railroad Museum in Parrish Florida near Tampa.

Founded in 1981 as the Florida Gulf Coast Railroad, the Florida Railroad Museum is one of three Official State Railroad Museums in Florida. The museum operates a heritage railroad along a former Seaboard Air Line.

### LAST 9/11 RAILCAR SETTLES IN

On 16 December PATH car 143 arrived at its final home, the Trolley Museum of New York, on a flatbed truck.

Buried in the 9/11 rubble of the World Trade Center, Car 143 along with 139, 160, 612, 745, 750, and 845 had been abandoned under the World Trade Center but survived the buildings' collapse sheltered by cast iron tunnel walls. No passengers were found inside the abandoned cars when they were later discovered.

Although the other cars were scrapped, Cars 143 and 745 were stored - 745 to be donated to the Shore Line Trolley Museum and 143 to the Trolley Museum of New York.

### TEXAS TO NORTH CAROLINA

The North Carolina Transportation Museum in Spencer, North Carolina has taken temporary possession of the 159 year old US Civil War locomotive, TEXAS, for historical research and restoration.

One of Atlanta's historical treasures, TEXAS is famous for her part in the Great Locomotive Chase of the Civil War. Since 1927 she has been housed in Atlanta's Grant Park's Cyclorama.

Work on TEXAS will not restore her to operation, but rather

will entail study and preservation via a piece by piece analysis restoration work by Steam Operations Corporation, returning her to the earliest appearance for which there are records.

TEXAS pulled passenger and freight trains for 51 years before being retired in 1907. She was rescued from the Western & Atlantic yard in Atlanta in 1911.

Upon completion of the work in Spencer later in 2016, TEXAS will be moved to a new facility being built at the Atlanta History Center in Buckhead.

### AND FOR THE LAST TIME, NO!!!

On 16 December Norfolk Southern's Board of Directors unanimously rejected Canadian Pacific's revised proposal to acquire the NS and form a new company that would own Canadian Pacific and Norfolk Southern.

## SOUTH AMERICA

### ARGENTINA

Electrification of the suburban route from Buenos Aires Plaza Constitucion to La Plata is underway, work having at present reached Quilmes, to which point the overhead is already energized, allowing some of the new Chinese trains built for the line to undertake experimental runs. It is expected that the scheme will be completed all the way to La Plata by the early part of 2016.

The project also includes automatic signalling equipment, and the remodelling and raising of platforms at the nineteen stations on the route, and is expected to cost some US\$834 (£563 million).

*Volta O Trem via Samuel Rachdi and "Diario Conurbano"*

On the heritage scene in Argentina, considerable further progress has been made on the restoration of ex- Buenos Aires Great Southern Railway 12E Class Pacific No.3925 at the Remedios de Escalada workshops of Ferrocarril Argentina, on which we last reported in Issue 96.

The overhauled boiler was refitted to the rolling chassis on 7 November, a significant turning point in the project. It is planned to restore the locomotive to main line operating condition, and with modern steam technology modifications including double Lempor exhaust, combustion system, and better insulation and lubrication.

The locomotive was previously identified as one of those to be used when a main line steam operation between Buenos Aires Plaza Constitucion and the coastal resort of Mar del Plata was proposed during the 1990s, but although sadly this did not come to fruition due to political changes in Argentina, the modern features which are to be incorporated in the present restoration will enable the locomotive to provide fast and environmentally friendly operation, as was intended as part of the previous proposal.

*Shaun McMahon*

### BRAZIL

The metro system in the city of Salvador, capital of the north-eastern province of Bahia, has recently added a further station to its network, at Bonoco, opened after a construction period of ten months.

As LI reported in Issue 91, the first section of this proposed two line system opened in June 2014, serving five stations on a partly underground route, and since then a further section of Line 1 has been finished together with the station at Bom Juá; Bonoco brings the number of stations in service to seven, with a further





**Above:** The handsome lines of ex-Central Railway of Brazil Pacific No. 353 are shown off to good advantage in this view taken whilst the locomotive receives crew attention during its recent operation on the *Trem de Guararema*.

*ABPF*

**Centre:** Before restoration, the same Pacific No. 353 as pictured above is seen in store at Trem dos Imigrantes, Sao Paulo, 2012.

*Lionel Price*

**Lower:** Major progress is made with the restoration of 12E No. 3925 at Ferroclub Argentina's Remedios de Escalada workshops, Buenos Aires, as the restored boiler is lowered on to the chassis.

*Alejandro Tosoratti*





stop at Piraja planned to complete the initial phase of Line 1, and thereafter Line 2 is currently projected to have eleven more stations, with an interchange at Acesso Norte.

Possible future extensions would add two further stops to Line 1, and one to Line 2.

The standard gauge system is operated by four coach trains with a passenger capacity of approximately 1,000, and is electrified at 3kV overhead.

*Volta O Trem via Samuel Rachdi and Metro Bahia*

On the railway heritage scene in Brazil, a group of inhabitants of Aguas da Prata, a small town north of Campinas in Sao Paulo State have been carrying out renovation work to the town's disused station, which now sees only one goods train each day, and it is hoped that the project will be completed in time to allow it to be decorated with Christmas illuminations.

*Volta O Trem via Samuel Rachdi*

Also on the heritage rail scene in Brazil, the small number of broad gauge preserved operations have been enhanced recently with the inauguration of *Trem de Guararema*, an addition to the "stable" of heritage railways operated under the overall umbrella of the ABPF (Brazilian Association for Railway Preservation).

This consists of operation of a regular steam service over 6.8km of broad gauge (1600mm) route between Guararema (which lies approximately 65km east of Sao Paulo International Airport (Guarulhos) and Vila Luis Carlos, with two return journeys on Fridays, Saturdays and Sundays, using former Estrada de Ferro Central (Central Railway) of Brazil three cylinder wood fired Pacific No.353 (Baldwin 59736 of 1927) and three British built passenger coaches, one dating from 1896 built by Metropolitan Railway Carriage and Wagon Company, and two from 1937 supplied by Birmingham Railway Carriage and Wagon Company. The locomotive has been restored for heritage trains once before, in 1980, but has more recently been on display as one of the exhibits at the Trem dos Imigrantes in Sao Paulo.

The restoration of the locomotive took place on site at Guararema, but with many components overhauled at the ABPF workshops at Cruzeiro, and with some assistance from personnel at the "Trem da Serro do Mar" heritage railway at Rio Negrinho in Santa Catarina state.

This magazine's main Brazil correspondent, Bruno Sanches, has been involved in the establishment of the new operation, and at weekends he is now managing the operation at Guararema.

*Volta O Trem via Samuel Rachdi,*

*Thomas R Schultz, Bruno Sanches and*

*"The Railways of South America" by D. Trevor Rowe (LI 2000)*

It is also reported that further testing of the ex-Dona Teresa Railway 2-6-6-2 Mallet locomotive No.204, covered in several recent issues, has taken place, with a test run on the "Trem da Serro do Mar" line at Rio Negrinho occurring on 5 December.

*Thomas R Schultz*

At the same time some very sad news to report on the railway heritage scene in Brazil is the disastrous fire which struck Luz Station in central Sao Paulo on 21 December. The fire started in the block of buildings adjoining the main train shed, now occupied by the Museum of the Portuguese Language, and severe damage was done to the upper floor of the buildings, with the roof completely lost, but it appears that the train shed itself has escaped major damage, although not surprisingly the station has been closed for safety reasons.

Sadly, also, the life of a firefighter was lost in the blaze.

The prestigious station, built in classic 19th century style, was built in 1901 for the British owned Sao Paulo Railway, and was designed by British architect Charles Henry Driver. Materials for

its construction were manufactured in Glasgow, brought from the United Kingdom, and assembled on site.

An array of splendid pictures of the station as it was in its heyday may be seen in the *Locomotives International* publication *A Very British Railway* (LI 2003), on the subject of the Sao Paulo Railway. (*Editor's Note: There are about 30 copies of A Very British Railway remaining in the print run*)

*AP via Ian Thomson Newman*

### CHILE

With further reference to the future prospects for the railway in the Chanaral - Diego de Almagro - Potrerillos region, badly damaged by the floods reported on in Issue 96, further reports from other correspondents have confirmed that these routes will not reopen, as mooted in Issue 97, and in the article *The Potrerillos and Chanaral Railways* in Issue 99, because the cost of repair of the railway is disproportionate to the value on the world market of the copper product being produced by the mine and smelter it serves, the former of which has a limited life, and instead CODELCO (the mining company concerned) will concentrate on production from other mines it operates elsewhere in Chile.

*Mel Turner*

A further loss to rail transport in Chile is also reported, in that the fascinating electrified Toco-Tocopilla Railway, in Northern Chile between Antofagasta and Iquique has closed, due to the mining conglomerate SQM which operated at Pedro de Valdivia having recently fulfilled all its transport requirements by road, following serious landslides caused by floods which blocked the line in the Reverso area behind Tocopilla in August, and the mining operation at Pedro de Valdivia itself closed in November 2015, with nitrate production transferred to the facility at Nueva Victoria east of Iquique.

All rolling stock has been brought to Maria Elena station for storage and possible sale.

*Mel Turner and Volta O Trem via Samuel Rachdi*

On the modern rail scene in Chile, it is reported from the city of Concepcion that the first electric passenger train between Lomas Coloradas and Coronel ran on 13 November with railway technical staff aboard, and that public test journeys on the line will run from January 2016.

Opening of this stretch of commuter railway will complete the system of suburban rail routes in the city area, as previewed in the report in Issue 98.

Further positive news from Chile, this time on the heritage railway scene, is that there was a visit by state president M.Bachelet to the Valdivia - Antihue line on 8 November when he travelled the line to see progress being made in rebuilding work, and it is anticipated that the steam train "El Valdiviano" will recommence operation from January 2016.

Some details of the various heritage trains operated by EFE, the Chilean state railway administration, were given in Issues 90 and 93.

*Volta O Trem via Samuel Rachdi*

### INTERNATIONAL (ARGENTINA - CHILE)

News has been received of proposed developments on the reopening to freight traffic of the Northern Transandine rail route, designated "Ramal C14" within Argentina, the prospects for which were discussed in Issue 91.

It is reported that when reopened the Chilean side of the line, from the border to O'Higgins, where the route joins the FCAB (Antofagasta-Bolivia Railway) line to Antofagasta, is to be managed by a joint venture between the FCAB and Ferronor, and four diesel locomotives of class GR12, until recently used



on the Chanaral - Potrerillos line (referred to below) have already been moved by road to Ferronor's depot at Baquedano.

Reopening was proposed to take place in November 2015, but was delayed by Argentine Customs since there was no working wagon scale on that side of the border crossing at Socompa, and since then matters have been further delayed by floods having washed out a bridge on the western side of Salta in early December.

Press reports in Salta say however that the Argentine portion of the line will reopen for the operation of the diesel hauled tourist train "Tren a las Nubes" in mid-March.

*Mel Turner*

## INTERNATIONAL (CHILE - PERU)

The short international line from Tacna to Arica, reported on in several recent issues, has still not reopened to traffic, and although reports from this magazine's reporter in the region, made after personal inspection "on the ground" and conversations with railway personnel indicate that there is now no technical reason why resumption of services has not taken place, with both track condition and rolling stock refurbishment having been carried out as previously described (albeit that the installation of a toilet in the refurbished railcar, previously reported to be the intention, has not been done, probably because it has been discovered that there is no space to locate such a facility, and the relatively short length of the line probably does not warrant such a facility in any event!) it would appear that administrative reasons, possibly connected with issues as to liability between the respective governments for the cost of insurance, are the current reason preventing progress being made.

*Ian Thomson-Newman*

## ASIA

### CHINA

#### Shanghai Metro

The remaining sixteen stations on Line 12 were opened on December 21st, with the final batch of MOVIA trainsets entering service on the same date. Bombardier has now delivered 246 MOVIA cars (41 trainsets) for Line 12.

The 40.4 km underground Line 12 with 32 stations passes through the city centre from the South-West to North-South direction in the Pudong New Area with up to 19 available interchanges for passengers covering eight districts of the city. The first section, from Tiantong Road to Jinhai Road, opened on December 29, 2013, followed by the extension to Qufu Road on May 10, 2014.

*Bombardier*

## EUROPE

### BELGIUM

#### SNCB

A consortium between Bombardier Transportation and Alstom has signed a framework contract to supply up to 1,362 M7 double deck cars to SNCB. The total order is valued at 3.3 billion euro (\$3.6 billion US).

The first firm order signed includes the design and

## Continental Railway Circle

The Continental Railway Circle holds regular meetings in London and Stafford. London meetings are held at St Paul's Church Centre, Rossmore Road, Marylebone, NW1 6NJ. Start time is 19.15 on the second Thursday of the month. Booksales and refreshments are available from 18.30. The forthcoming programme is as follows -

**Thursday 11th February:** *Iain McCall* **It's a Mystery to Me.** The Locomotives International proprietor looks back over some of highlights from the first 100 issues, emphasising the more unusual and eccentric lines and locos featured.

**Thursday 10th March:** *John Sloane* **Scenes from South America.** A traditional slide show.

**Thursday 14th April:** *Richard Pelham* **South African Industrial Steam Part 2.** A follow-on from Richard's January 2015 presentation. This time it features Natal and the Orange Free State again including slides from a number of photographers.

The next Stafford meeting is on **Monday 7th March 2016:** *John Sloane* **Steam in Greece and Turkey in the 60s and 70s.** A traditional slide show held jointly with the Stafford Railway Society.

Although the Continental Railway Journal is no longer published most issues from 1975 onwards are still available from Audrey Peattie, 29 Watford Field Road, Watford, WD18 0BH. Email [audreypeatie@ntlworld.com](mailto:audreypeatie@ntlworld.com). Price is £1 each. UK postage 50p per copy maximum £5, overseas £1 maximum £10.

[www.continentalrailwaycircle.org.uk](http://www.continentalrailwaycircle.org.uk)



manufacturing of 445 cars. Deliveries for this first order will take place between September 2018 and 2021.

These new trains will increase the overall capacity on SNCB' network by adding an additional 145,000 seats. The trains will be able to run at speeds of up to 200km/h and will operate on all Belgian mainlines as well as across the border to the Netherlands and Luxembourg, including on some high speed lines.

*Bombardier*

### GERMANY

#### Berlin Transport Authority

Bombardier Transportation has been contracted to supply an additional 47 'Flexity' trams to the City of Berlin. This is an option order based on the framework agreement for a maximum of 206 vehicles signed in 2006. The order is valued at approximately 176 million euro (\$190 million). Additionally, in response to the constantly rising number of passengers, 20 trams from a previous order will be modified from five to seven-module vehicles.

*Bombardier*

### SPAIN

#### Ferrocarrils de la Generalitat de Catalunya (FGC)

The origin of the Ferrocarrils de la Generalitat de Catalunya was the offer made by the Catalan government in 1978 to take over all the narrow gauge lines in Catalonia which were still offering a service. By then, the lines belonged to FEVE, an organisation of the Spanish state with offices in Madrid some 650 kms away, and the Barcelona network was both insensitively managed and very run down. Major investment was needed but no money and little interest was forthcoming from Madrid, whose only solution in such situations throughout the 1960s had been closure. The

new management put the first of some new trains into service in 1983, the 111 series EMUs. They incorporated all the latest technology, and air-conditioning, and from the outset were both popular and efficient, and the FGC came to be very proud of its new trains and the improved level of service established after their arrival. It helped that they had been built in Barcelona. To cut a long story short, the last of the 111s were scheduled to be withdrawn last year (2015) and a suitable send-off was planned for 23rd September. It was announced that one was to be preserved; a panegyric book was commissioned from the Catalan railway historian and LI collaborator Carles Salmerón; unit 111.02 was renumbered to replace 111.01 which had already been scrapped; and everyone was invited to Barcelona (Plaza Catalunya) Station for the launch of the book and to board the unit for a final journey to Avenida Tibidabo. Meanwhile, in the run-up to 23rd September, teething troubles with some new EMUs then entering service (the 114 series) meant that the last two 111s would have to remain at work for some weeks more, and so wouldn't be available for the ceremony; and Carles the author of the book died of cancer (it is dedicated "To the doctors and nurses of the Hospital Clinic of Barcelona, without whom this book would not have been finished"). The speeches at the launch of the book became eulogies not so much of the excellent qualities of the 111 series EMUs, but rather of the life and work of Carles Salmerón, and when they were over, EMU number 113.08 was formally named after him. How many LI readers have had a train named after them?

*Acknowledgements: J. N. Bennett, A Roig, J-C. Salmerón*

The FGC has named some of its EMUs. On 23rd September 2015 one of LI's Spanish correspondents, Joan-Carles Salmerón, unveils the name of unit 113.08 which has been named after his father Carles Salmerón.

*Abel Roig*





# WORLD STEAM IN FOCUS



## NIGHT TIME IN THE CZECH REPUBLIC - AD VAN STEN

On 31st October 'Kriegslok' 2-10-0 555.0153 hauled a freight train from Krupa to Prague and back. This train was organized by the German team Stefan Lohr and Henry Riedel with the valuable support of the Czech club KHKD. After the war the Czechoslovak State Railways (ČSD) received a total of 185 of these locomotives, which were designated as class 555.0. 52 7620 (the later 555.0153) was built in 1944 in Floridsdorf. The engine was sold to Yugoslavia in 1960 where she served in the Kreka coal mines as 33-502. The 1.Österreichische Straßenbahn-und Eisenbahnklub (1.ÖSEK) bought the loco, together with 5 others, back in 1991. Ten years later the engine was sold to the Czech club HERKULES KHKD, which brought it to České Velenice for a heavy overhaul. Since February 2003 555.0153 has been available again for special trains. The freight wagons also belong to the KHKD.







### **‘A NORTH BRITISH EXPAT’ ON THE MAIN LINE - MICHAEL CHAPMAN**

Further to Stephen C Phillips' article on R704 in LI99, sister locomotive R761 operated a Steamrail special from Melbourne to Echuca on 24th October 2015. These pictures show it being turned on the 'table' at Echuca, and on its after-dark return to Southern Cross in Melbourne.







## STEAM ON SLOVENIAN VIADUCTS - DAVE COLLIER

**Above:** 33.037 and Borsig 06.018 doublehead a goods charter over the Baca Viaduct near Most na Soci on 11th October.

**Below:** Another view of 33.037, this time on 6 September heading a charter for the 'CLUB' tourist agency over Grahovo viaduct on the steep climb to the summit of the line at Podrdo, en route to Bled from Nova Gorica.





During the RTC Sardinia tour in October, FCS 400 departs Sorgono with a train for Mandas on Friday 23rd October. This section has no timetabled service and only occasional charters for tourist groups.

*Bryan Acford*







SORGONO

31L  
380

SORGONO

SORGONO

FCS



# READERS' REPORTS

## supported by the Continental Railway Circle

Contributions for this section should be sent to the Editorial Office, with the following exceptions:

- Norway, Portugal, Spain, Sweden - John N Bennett, c/o 10 Fitzroy Road, Swindon, SN1 4DU. EMail: JohnNBennett@hotmail.com
- Southern Africa - John Middleton, c/o Editorial Office EMail: johnmiddleton3401@gmail.com
- North & Central America - Bransom Bean, Rock Cottage, Poyll Vaaish, Castletown, Isle of Man, IM9 4PJ. EMail: bbean@finefocusing.com
- South America - Lionel Price, 9, Liverpool Road West, Oswestry, Shropshire, SY11 1PE. EMail: jldprice@btinternet.com

Contributions which are primarily photographic in nature should all be sent to the Editorial Office to give the best choice of material for covers and the World Steam photo gallery etc. Similarly historical articles and features should be sent to the Editor. The Editor's contact details are:

Iain McCall, Mainline & Maritime, 3 Broadleaze, Upper Seagry, near Chippenham, Wiltshire, SN15 5EY. EMail: iain@mainlineandmaritime.co.uk

## SOUTH AMERICA

### ARGENTINA

#### Rio Turbio Railway

Following a second round run off for national president of Argentina that took place on 22nd November 2015, a new national government was sworn in on 10th December. Already many changes have been made with respect to the way in which the country is run. A major change that will affect overseas visitors is that of the return to a free exchange market following a release of the overseas money exchange restrictions that had been enforced by the previous government during 2011 following their third election win at the ballot boxes. During recent times the US Dollar has had up to six exchange rates, but following the lifting of the restrictions there is now just one rate and people can exchange currency at banks and foreign exchange offices instead of on the black market. Apart from having a direct effect on tourism this change in policy has also had an immediate effect upon industry. Import restrictions have also been lifted as the country returns to normality thus components for steam locomotives can once again be purchased from overseas suppliers. As readers will realise this alters the perspective of projects such as the Rio Turbio Railway in various ways.

Due to the political changes that have taken place, the completion date of March 2016 has now been altered to a point in time later on during 2016 that will tie in with organisational developments at YCRT. Strike action continues at Rio Turbio coal mines, workshops, railway and power plants. During the last week of the outgoing government's period in office, an attempt was made to pass a bill to fully renationalise YCRT and form YCF S.E., which was rejected in the upper house, thus the new national government is in the process of deciding the future of the coal mines and its associated railway. It is likely to remain open, however changes so as to increase productivity and connect the new 240 MW power station to the national grid will most probably

come into effect during 2016.

Given the many changes taking place at the moment within the country, caution has prevailed and as a result the continuation of work has been slow yet steady with respect to RFIRT locomotive 107 and the Sentinel S6 steam waggon.

107's boiler takes a prominent position in Cromwell Marine's main erecting shop. As reported in issue 99, boiler work is now complete and only remodifications to incorporate the GPCS remain to be completed along with lagging and cladding as well as front end fitting. Tender bogies are complete and await fitting under the tender body which is still under repair. Main driving and coupled wheel tyres have been turned and work on the chassis will continue during the next few months.

Rebuilt locomotive 119 along with its set of refurbished coaches, remain parked up at Turbio Viejo Staion (32km short of Rio Turbio) until further notice. The railway has no traffic running over it at this point in time. A political rather than a technical decision will determine when these items can proceed up the line so as to be stored under cover rather than continue to be exposed to the harsh windswept conditions and varying climate of the Patagonian scrub dessert.

The full rebuilding of the steam motor of the Sentinel S6 waggon continues; as mentioned in issue 99 a considerable amount of rectification work is required to bring this major component back to working order. A whole new lubrication system has been manufactured and is being trial fitted at the moment. Reassembly of the chassis unit is taking place at the time of writing and a completely renewed tipper section is complete, to be fitted to the S6 once the chassis, motor, boiler and cab are in place.

*Shaun McMahon*



### PERU

'Andes' 2-8-0 No. 206 is pictured on 28th August 2015 in the siding at San Bartolome, where it remains in store and slowly deteriorating. The longer it stays here, the more the chances of it returning to charter operation seem to recede.

*David Andrews*



On 13th December, TasRail's train 34 from the Brighton Transport Hub had no fewer than four of the Progress Rail built TR Class locos at the head of the formation of log and coal wagons. The rake is seen passing Danby.

*Rowan Kinnane*



## AUSTRALASIA

### AUSTRALIA

#### Queensland Pioneer Steam Railway

This railway operates over the Swanbank Branch which is used occasionally by ballast trains during the week which load at Box Flat, where the group is also based. When the Swanbank power station was operational coal trains ran over the branch. The train departs from the Bundamba Racecourse platform, Ipswich near the start of the branch line. In September 2015 the train trip was from Bundamba Racecourse, around the balloon loop at Box Flat

and return. The group's website now advertises a longer trip to Swanbank from 13 December 2015.

On the day visited the train was hauled by steam and diesel which according to the staff on duty was due to the steam locomotive not having built up sufficient steam pressure by the time it was due to leave Box Flat for the first trip of the day. The diesel was left on the train for the day. With the balloon loop at Box Flat this resulted in two trips with steam leading and the other two with the diesel leading. The locomotives in use were ex Queensland Government Railways PB15 448 4-6-0 built by Walkers, Queensland in 1908 and 1616, built by English Electric, Rocklea, Brisbane in 1963, an 838 hp Co-Co.

*Robert Sweet*

The steam / diesel combination in action on the QPSR on 6th September 2015.

*Robert Sweet*







The sugar cane cutting season in Queensland usually runs between June and December each year. Over a distance of 1,500 km along the Queensland coastal region there are eighteen sugar mills that operate 2' gauge tramways except for the Pioneer Mill at Brandon which is 3'6". Including mainlines and sidings there is approximately 4,000 km of track. Temporary track is not laid into the fields, cane is brought to the sidings by a number of means including winching the sugar cane bins onto a truck or trailer to take them to the field to be loaded and then returning the bins back to the siding. The sugar cane bins are not braked, some mills have a radio controlled brake vehicle at the rear and trains can be up to 1 km in length, weighing 2,000 tons at some mills. From Brisbane, the capital city of Queensland the nearest sugar mill is the Isis Central Sugar Mill at Cordalba approximately 330 km from Brisbane. The Mossman Mill is the furthest away from Brisbane at approximately 1,830 km from Brisbane. Mossman is close Cairns which is a popular tourist area for the many attractions in North Queensland. The sugar mill railways of Queensland offer a number of photo opportunities with different backgrounds, bridges and mountains as well as the cane fields.

**Top:** Mossman Sugar Mill – FAUGHY and DOUGLAS built by Comeng in 1965 & 1963 taking empty bins out to the field. This system has bogie bins whereas most other mills have 4 wheel bins.



**Centre:** South Johnstone Sugar Mill – No. 12 built by Clyde in 1955 about to run down the street in South Johnstone past the local hotel taking loaded bins to the sugar mill. The sign on the left is for the hotel which states – "Special – Buy two beers and pay for them both".



**Bottom:** Isis Central Sugar Mill, Cordalba – No. 5 was rebuilt and converted to 2' gauge in 1998 from ex Queensland Railways 3'6" DH35 a diesel hydraulic built by Walkers in 1969. The loaded train is approaching the steep descent down to the sugar mill which is taken with caution.

*All: Robert Sweet*



**Top:** Tully Sugar Mill – No. 6 was rebuilt and converted to 2' gauge in 1993 from ex Queensland Railways 3'6" DH66 a diesel hydraulic built by Walkers in 1970. The other vehicle in the photograph is a radio controlled brake vehicle.



**Centre:** Fairleigh Sugar Mill – Hampden was built by E M Baldwin in 1976 crossing the Pioneer River near Pleystowe on a road/rail bridge with empty bins. The nearby Marian Sugar Mill also has two bridges across the Pioneer River.



**Bottom:** Victoria Sugar Mill, Ingham – Clem H McComiskie - was rebuilt and converted to 2' gauge in 1991 from ex Queensland Railways 3'6" DH23 a diesel hydraulic built by Walkers in 1969. This train is taking raw sugar to the Lucinda sugar terminal. The Macknade Sugar Mill also shares the line to the Lucinda sugar terminal taking raw sugar trains to the Lucinda sugar terminal. The Victoria Mill train has a brake vehicle attached at the rear. These are the only two mills where you can see trains other than cane bins on the 2' gauge systems.

*All: Robert Sweet*





# NEW ZEALAND

## Museum of Transport and Technology, Auckland

A visit was made to this diversely themed museum on Saturday 31 October, a "normal" opening day.

The museum is spread over two large sites, designated "MOTAT 1" and "MOTAT 2", the former being the original site developed as a museum, and including exhibitions on a number of themes other than transport and technology, such as a number of preserved buildings, whilst the latter comprises the recently built air hall, named for Sir Keith Park, open on a daily basis, and the volunteer run railway, which operates only on certain Sundays and other special days, the two sites being connected by the 1.8km "Western Springs Tramway", a heritage line named after the district of the city in which the museum is located, and on which the museum's extensive collection of New Zealand and Australian trams are operated.

The impression which the museum gives to visitors is that whilst at "MOTAT 2" the air hall in particular is quite splendid, having obviously been developed at considerable expense as a "professional" museum, and the adjacent heritage railway area, having obviously also been the recipient of much investment in its infrastructure would doubtless be a very worthwhile visit when it is in operation (although it is regrettable that the railway collection is not even open to view on a daily basis), the original site at "MOTAT 1" is now looking tired and in need of a reappraisal of its objective within the overall complex: for example the large railway exhibits at "MOTAT 1", such as ex-NZGR K Class 4-8-4 locomotive No.900 which is currently displayed under a poorly maintained open sided canopy, and the station building and signal box from Waitakere, north of Auckland, would surely be

better located with the rest of the railway collection at "MOTAT 2".

On a positive note it would appear that the management of the museum is aware of the present shortcomings of "MOTAT 1", since its current annual report makes specific reference to the buildings and grounds looking tired, and the need for their redevelopment or replacement.

The heritage tramway at least runs on a daily basis, and is an excellent way of travelling between the two sites, ex-Melbourne cars 893 and 1032 being seen in use on the day of this visit.

It was also notable however that it was only possible to view many of the preserved trams by seeking out a member of staff who was kind enough to arrange access to the tram barns located at "MOTAT 1".

*Lionel Price*

## Glenbrook Vintage Railway, Waiuku

This well established steam railway was visited on Sunday November 1, a normal operating day, when the line runs five return trips over its 7.5 km line, a part of the former Paerata to Waiuku branch, which diverged from the north island main trunk route some 30 miles south of Auckland.

The locomotive in use on the day of the visit was Ww Class 4-6-4T No.644 (Hillside Workshops, Dunedin 179 of 1915), incidentally a member of one of the classes of locomotive which operated the line in its early years, hauling a train of three sympathetically restored vintage wooden bodied carriages separated by an open bogie wagon for the use of the passengers which although not a contribution to the photogenic qualities of the train was obviously popular with the passengers.

Although like virtually all the heritage railways in New Zealand Glenbrook does not run daily, a visit is a most pleasurable

experience with some quite attractive scenery complemented by authentic NZGR locomotives, stock and infrastructure; a particular and quite unusual feature of the Glenbrook experience is that every train halts on its return journey at the intermediate station at Pukeoware, where passengers can inspect other locomotives and stock in the railway's workshops during a short stopover.

*Lionel Price*

## Bush Tramway Club, Pukemiro, Nr.Huntly

This heritage railway was also visited on Sunday November 1, located as it is relatively close to the Glenbrook line (app. 1 hour via State Highway 1) and an easy drive from the Auckland area.

The railway is dedicated to the history of New Zealand's timber carrying "bush tramways" and other industrial railways, and occupies a 5.4km stretch of the former NZGR Huntly to Glen Afton branch, closed in 1971, from Rotowaro to Glen Afton.

The railway's headquarters are at Pukemiro midway on the line, so trains are usually operated with locomotives top and tailing to each end.

On November 1 unfortunately, local fire risk (apparently a constraint on operation which occurs quite often) was such that the train service

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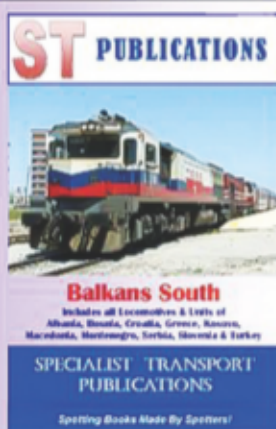
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was diesel operated, but the railway's Peckett 0-6-0T (No.1630 of 1923, ex-Pukemiro Colliery, whose line diverged from the NZGR branch at Pukemiro) was in steam, and running within the station limits, and ex-NZGR L Class 2-4-0T locomotive No. 507 (Avonside, Bristol 1205 of 1877) was pulled out from the locomotive shed for photographic purposes.

The latter locomotive has been visiting Pukemiro during 2015 to celebrate the 50th anniversary of the Club, reported on in pictures in Issue 98, and was shortly to return to its home at MOTAT, where it is part of that museum's collection.

This is a most friendly and welcoming operation, and is to be recommended, particularly if a visit can coincide with one of its operating days.

*Lionel Price*

### **Kapiti Coast Electric Tramway (Wellington Tramway Museum), Paekakariki Nr.Wellington**

This very pleasantly located museum operates its collection of mainly ex-Wellington city trams on weekends and public holidays, and was described fully in LI99.

A brief visit on Saturday 17 October saw ex-Wellington "Double Saloon" car No.151 in operation, one of two which are operational, with "Single Saloon" No. 239 on display outside the tram barn.

*Lionel Price*

### **Silver Stream Railway, Upper Hutt, Near Wellington**

This museum operation was visited on 18 October, one of the line's normal Sunday operating days, with a group from the Australian Railway Historical Society, New South Wales Division, which found ex-New Zealand Government Railways C Class 2-6-2 No. 847 (Hillside Workshops, Dunedin, 255 of 1930) in steam, which despite very wet weather participated in some photographic opportunities for the benefit of the group together with 1950s built Bo-Bo diesel DE 508, before commencement of the day's public service.

The railway has a varied collection of locomotives, mainly steam, including one of several surviving L Class 2-4-0Ts built by Avonside in Bristol, and dating from 1877, but it only has a very short running line of about 1.5km, which has been created by relaying track on a section of the nearby main line north of Wellington which was bypassed in 1954 when improvements to the latter were carried out.

*Lionel Price*

### **A. & G. Price Engineering Ltd., Thames**

This long established engineering company, which was responsible for the construction of many New Zealand Government Railways locomotives as well as giving its name to its own particular type of "Bush" locomotive for the country's idiosyncratic timber tramways, continues to trade successfully from its works which covers several blocks at the northern end of the town.

Nowadays the company carries out much less railway related work, but appears to be thriving by trading on its diversified engineering capabilities.

One of the more notable railway contracts of modern times was in 1990 when the company undertook regauging from 3' 6" to metre gauge of most of the carriages which were formerly used on the New Zealand Railways "Silver Star" overnight sleeper service during the 1970s, and which were then shipped to Singapore for conversion to a luxury standard for use on the Eastern & Oriental Express: a few of the carriages were not converted, and remain stored at Price's premises to this day.

*Lionel Price*



Vintage electrics Eo Class 3 and Ec Cs 7 at Ferrymead Heritage Park on Thursday 29 October.

*Lionel Price*

### **Ferrymead Heritage Park, Christchurch**

This is probably the best known of New Zealand's historic heritage parks, and was visited on Thursday 29 October when the Canterbury Railway Society, which operates the heritage railway at the park, put its two most historic electric locomotives into service for the group from the Australian Railway Historical Society New South Wales Division, Eo Class No.3 built in 1922 for the electrification of the Arthur's Pass to Otira Tunnel section of the Christchurch to Greymouth line in 1929, and Ec Class No.7, built in 1928 when the Christchurch-Lyttelton line was electrified; both locomotives were built by English Electric, and are rare examples of early electric traction in working order.

*Lionel Price*

### **Shantytown, Nr. Greymouth**

This forestry and industrial heritage park is commercially run, and opens on a daily basis one benefit of which is that the steam railway forming part of the attractions also runs daily.

The park was visited on 27 October in typical South Island west coast wet weather, and found both of the line's working locomotives in steam, L Class 2-4-0T No.508 (Avonside, Bristol No. 1206 of 1877) being rostered to work the public passenger trains, and Improved F Class 0-6-0T KAITANGATA (Sharp



At Shantytown, 0-6-0T KAITANGATA awaits the boiler inspector's pleasure on Tuesday 27 October.

*Lionel Price*



Stewart, Glasgow 4270 of 1896) being readied for its annual insurance boiler inspection.

Despite the fact that the railway forms part of a commercial park, the locomotive collection is an interesting and varied one, including a Climax and a Heisler in addition to the two operating locomotives, and can be inspected freely.

Anice feature of the railway experience provided at Shantytown is that when the train reaches the end of the operating line, which is built on part of the alignment of an abandoned "bush tramway", passengers are invited to inspect the locomotive footplate via sets of steps located either side of the track at the point where the locomotive comes to a halt.

*Lionel Price*

### Plains Vintage Railway, Ashburton

This railway was visited on Thursday 29 October with a group from the Australian Railway Historical Society, New South Wales Division, which chartered a train hauled by the railway's flagship locomotive, Rogers 2-4-2 K88, No.2454 of 1877, perhaps the most historically unusual steam locomotive running in New Zealand today.



Rogers K Class 2-4-2 K88 waits for the "right away" at the Plains Vintage Railway on Thursday 29 October

*Lionel Price*

K88 was the first of a very few American locomotives imported to New Zealand in the early days of the railways, initially for use on the then fledgling main line between Christchurch and Dunedin, and after surviving in branch line use on NZGR until the 1920s, it was dumped in a river to bolster flood defences; remarkably, it was recovered from the river in the early 1970s, and after an initial restoration, when it ran with a boiler fitted about 1900, the locomotive underwent a second and more thorough restoration including the fitting of a brand new boiler, and it now runs again in all its glory, wearing what is believed to be its correct (and colourful!) original livery, and name WASHINGTON.

In addition to K88, the railway also has an interesting "A" Class 0-4-0T (Dubs 651 of 1873), the second oldest operational steam locomotive in New Zealand, and, by way of contrast, Ja Class 4-8-2 No.1260.

The railway is part of a "pioneer" style theme historical park, which also includes preserved buildings and other collections, and most of its short running line is on the alignment of the former NZGR Tinwald to Springburn branch, the last part of which was closed in 1968.

*Lionel Price*

### Oamaru Steam Railway

The line's steam locomotive, Hudswell Clarke 0-4-0ST B10, No. 1542 of 1924, whose return to service was reported in LI85, has unfortunately had to be withdrawn once again due to problems

with deterioration of the tubes, and a special charter operated on Wednesday 21 October for passengers travelling on Steam Incorporated's "Centennial" railtour was diesel hauled.

*Lionel Price*

### Kiwi Rail - Passenger Trains

There are now very few locomotive hauled passenger trains on the railways of New Zealand these days, and most of those that do run are aimed specifically at the tourist market under the banner of "Kiwi Rail Scenic", running between Auckland and Wellington, Picton and Christchurch and Christchurch and Greymouth, and formed of specially configured stock with airline style services on board, or are the tourist trains run by the private operator Dunedin Railways in that area of the South Island.

The services on the "Wairarapa Line" marketed as part of the Wellington suburban services ARE one of those rare loco hauled services, providing five or six return journeys on weekdays and two on weekends, between Wellington and Masterton, and were sampled on 16 October as a way to get to Featherston, the location of the Fell Railway Museum: the train provided a pleasant contrast to the multiple units seen elsewhere in the Wellington area, and the journey has the interest of traversing the Rimutaka Tunnel, opened in the 1950s to enable the famous Rimutaka Incline, with its Fell locomotives and savage gradients, to be closed.

*Lionel Price*

### Cook Strait Rail Ferry

During 2015, one of the two existing rail equipped ferries operated under the "Interislander" brand on the Cook Strait route between North Island and South Island, ARAHURA, was withdrawn, leaving only one rail equipped vessel, ARATERE, operating on the route.

*Lionel Price*

### Steam Incorporated, Paekakariki

DA1471 (works number A2017) was built by General Motors in Canada as a model G12U6 loco and entered service in December 1963. It then had a relatively uneventful 'life' until withdrawal in 1988; one item of note is that in 1984 it was the first DA sent to the South Island, which was for an overhaul at the Hillside workshops in Dunedin where it also got a repaint into 'fruit salad' livery and was renumbered DA 725.

Returning to 1988, when 1471 was on route to the Hutt workshops for scrapping, it got sidelined at Palmerston North depot where it was 'adopted' by the depot staff. A bit later, it became a part of the NZ Rail heritage fleet (later Tranz Rail) and was used for local trip work and even some Steam Incorporated (Inc) excursions. Around 2002 Tranz Rail disbanded the heritage fleet and involved the Rail Heritage Trust of New Zealand to help find new homes for the fleet, including 1471. Therefore Steam Inc became the informal custodians of 1471 and the loco was moved to Masterton goods shed for storage, which was where Steam Inc's DA team were based due to a then lack of space at Paekakariki. 1471 was loaned to Steam Inc on the proviso that should Tranz Rail require it back, it had to be returned to them. Sadly this was enacted in August 2007 with the loco going to the Hutt workshops for assessment for a return to traffic, which never happened. In the end it was dumped under a skimpy shelter where the salty air of the area took its toll on the metal work and the loco also became a 'Christmas Tree' giving up parts for the 85 strong DC fleet. In 2010 Steam Inc began negotiations with Kiwi Rail (who had indicated DA1471 was available) and with help from the Rail Heritage Trust, ultimately 1471 was purchased by Steam Inc. 1471 was then relocated to Paekakariki from the Hutt workshops on 4th May 2012, and just a few days later its 1425hp





DA1471 at the north end of Steam Incorporated's Paekakariki Depot, showing clearly both the state of restoration, and the 1425hp type 567 GM V12 2 stroke diesel engine.

*Phil Barnes*

V12 type 567 engine was successfully fired up.

This was only the start of this 'wheels up' rebuild, which started at the short hood end first, seeing much of the framing and body panels being replaced. Additionally components were refurbished and ultimately reinstalled along with the related pipework and wiring. The cab has been reskinned due to most of it rotting away except for the curved roof and framing; a few other cab related areas receiving work are:- a refurbishment of the electrical cabinet components, replacement of the cab side windows and nearby in the short hood, now sits a refurbished 26L brake rack. At the long end; the radiator, headlight and number boxes had been completed by early 2015. More work for the society will be on the A1A-A1A bogies, which were swapped for some worn ex DC items during its "Christmas Tree" days. With the acquisition of DA1471, alongside DA1431 and DA1410, Steam Incorporated now own a DA from each phase of the DA story. 1471 has proved to be a typical unloved ex-railways loco with just about every component either worn out, broken or missing, thus making it the big restoration job that it is.

Finally, as can be seen in the photo, as areas are completed they are being painted into a bright red as per Steam Inc's operational 1431, and it is intended that 1471 will be mainline certificated too.

*Phil Barnes*

### AUSTRIA

1938-built Bo-Bo 1245.518 runs round its train at Seekirchen am Wallersee whilst working an OGEG excursion from Salzburg on 5th December. The train was running over an hour late following a flashover (which caused catenary damage) whilst waiting for departure from Salzburg.

*Uwe Pietruck*





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## EUROPE

### GREECE

Observations from the October PTG tour to Greece

The narrow gauge railways of the Greek Peloponnese are but a shadow of their former self. The lines out of Athens over the Corinth canal as far as Kiato are now operating as standard gauge although the narrow gauge infrastructure and tracks can be seen at various locations along the way.

From Kiato as far as Patra sections of the narrow gauge line and infrastructure remain but some conversion work has been carried in a seemingly ad-hoc fashion. This has led to the bizarre sight of brand new standard gauge stations sitting on short isolated sections of rail-less embankments. Apparently a legal dispute with the main contractors, Siemens, has led to little work being carried out during the last ten years. This dispute has also affected the implementation of new signalling and electronics on the rest of the network.

The isolated Diakopto-Kalavryta narrow gauge rack line

continues to operate using second-hand Stadler diesel units from Switzerland. The previous electric units that included diesel generator trucks remain dumped at Diakopto shed.

The narrow gauge 'main line', resleepered around 2007, remains in situ around the rest of the Peloponnese although services were abandoned in 2009. The only trains to travel the lines are once a year enthusiast specials and units travelling to Kalamata workshops for repair. Much of the infrastructure remains, albeit some in a dilapidated state and there is significant vegetation encroachment in parts. There has now been a landslide in the vicinity of Dessila which prevents a 'circuit' being made. It remains doubtful if this will ever be repaired.

Despite the above, services do operate in two separate locations. Around Patra, a frequent suburban service operates between Agios Vasileios and Agios Andreas, a ride of approximately 30 minutes. There is a plinthed 2-6-0T at Patra station.

A service also runs between Katakolo and Olympia mainly for the benefit of visiting cruise ship passengers. This line runs through the junction station of Pyrgos where besides one dumped 2-8-2 there are other derelict diesels from D91xx and D94xx classes.

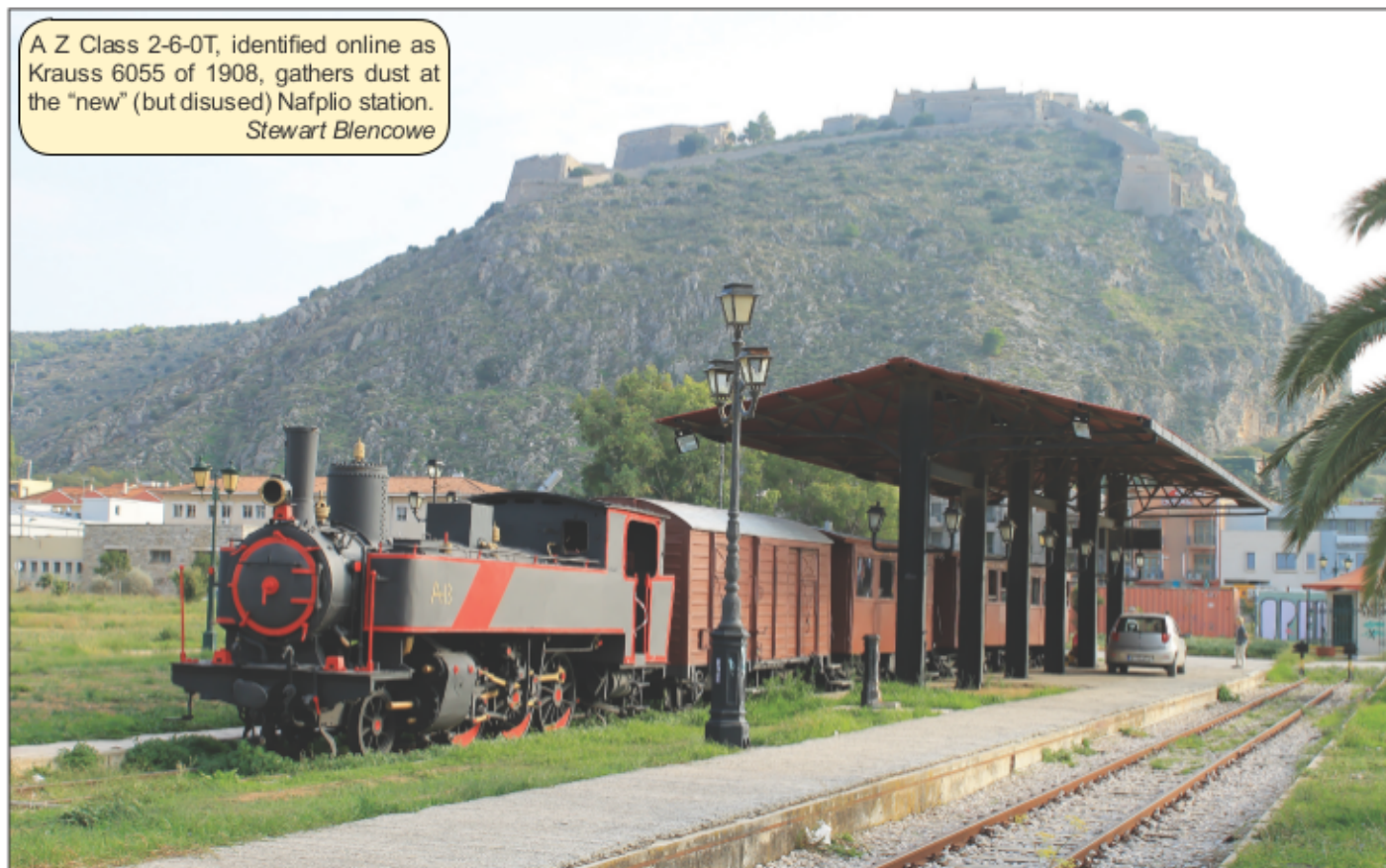
At Kyparissa a 2-6-0T Z753 is plinthed at the station. The branch from Kalamata to the port, last used in 2003, features a collection of 3 x 2-8-2s, 4 x 2-6-0Ts, a railcar and items of rolling stock all in varying states of condition. The large Kalamata workshops appear to still operate and the line from here to Messini sees railcar workings on high days and holidays.

At Milli an 'extensive' dump of eight 2-8-0s and 2-8-2s plus two diesels remain in the vegetation under the trees at the former shed. A Z 2-6-0T remains plinthed at Nafplio old station while the new station is the resting place for another 2-6-0T with carriages.

The tour was carried out using a modern two car DMU, part of the small fleet that operate on the two sections still open. These units, and all remaining stock and plinthed locos are heavily graffitied.

Stewart Blencowe

A Z Class 2-6-0T, identified online as Krauss 6055 of 1908, gathers dust at the "new" (but disused) Nafplio station.  
Stewart Blencowe





The Barcelona metro company's historic train (built Euskalduna, 1920-23), said to be the vehicles which inaugurated the first line on 30th December 1924. The train is only allowed out when services have ceased and the photograph was taken at 1.38am prior to working a special from Sagrada Familia to Sant Antoni (Line 2) on 19th November 2015.

*J-C Salmerón*



## SPAIN

### FEVE

Further to the reports in LI99, the following information has come to hand: (1) It is confirmed that most of the coal trains have stopped running. In September (2015), the only surviving workings were Musel-Aboño and Sueros-Soto de Ribera; (2) 3806, an ex FEVE EMU working out of Santander, has been noted in a RENFE livery. FEVE is now known as RENFE Métric.

### Ponferrada-Villablino (PV)

A visitor to the Ponferrada-Villablino line last August (2015) found diesel loco 1006 inside the shed at Cubillos; the doors were open and a photo of sorts was obtained. "All the other engines" were at Villablino. The railway was not operating. No. 1006 is an Alco, one of four acquired from RENFE in the 1990s and converted to metre gauge.

### Capdella Museum

At the beginning of the twentieth century, vast engineering works were undertaken in the Pyrenees north of Barcelona in order to develop the region's hydroelectric potential. Dams were built and power stations erected. Industrial railway systems were laid down only to be taken up when the works were completed. One of the power stations has become a museum and is visitable (it is not known whether it is still generating electricity). This is at Capdella, about 20 kms north of La Pobla de Segur in Lleida Province. Three of the items once in the collection of the now-abandoned Catalan Transport Museum project (see LI 99 p.50) worked in the construction of the Capdella complex and two of them have been returned there. Both the returnees are 600mm gauge: one is a very rudimentary Simplex 4wD, the other a tiny 4w carriage. There are several websites with photos of the museum (try typing "Museo hidroeléctrico de Capdella" into Google) but a first-hand report of a visit to Capdella would be of interest.

### Murcia

One of HUNOSA's 650mm gauge 0-4-0T, No. 27 MARQUES DE BOLARQUE (Borsig 8978/1914), has been relocated and is now in Los Alcazares (Murcia); it was previously displayed at the Pozo Carrio in Laviana, in Asturias, i.e. a long way away. There are only two other plinths in the Murcia region (Murcia is one of the regions of Spain with least locomotives preserved): FC Buitron No. 1 VICTORIA in Murcia city (photo in LI 90, p.44) and RENFE 130-2124 at Aguilas, outside the port.

### Polish Locomotives in Spain

LI subscriber Brian Garvin asks about two Polish narrow gauge locomotives which are reported as having been sold to Spain. One of them is a 600mm gauge 0-4-0WT from the Trümmerbahn (LKM 16005/1950) which is parked outside a hotel beside the main Irún - Pamplona road where it sweeps past Etxalar (Navarra). The other is Px48-1754, a 750mm 0-8-0 and tender, said to have gone to somewhere in / near Albacete: would readers who find themselves in Albacete please keep an eye open and report its location. There is (or was) a RENFE Mikado displayed in Albacete, too, but it hasn't been reported on since CRJ 104.

### Barcelona Metro (TMB)

One of the least known and most seldom photographed of railway items preserved in Catalonia is the TMB's historic train, which is only allowed out when services have ceased. It consists of cars M1-M6-M8 built by Euskalduna in the years 1920-23, which are said to be the vehicles which inaugurated the first Barcelona underground line on 30th December 1924. In the early hours of 19/11/2015 it worked a special from Sagrada Familia to Sant Antoni (Line 2) in association with the BcnRail Congress.

*Acknowledgements: J. N. Bennett, R. Clavijo, B. Garvin, A. Roig J-C. Salmerón, A. Viegas, Via Libre (RENFE's in-house mag) ARMF (Asociació per a la Restauració de Material Ferroviari) PTFE (Plataforma Tecnológica Ferroviaria Española) Museo hidroeléctrico de Capdella*



Borsig 650mm gauge 0-4-0T, ex HUNOSA No. 27 MARQUES DE BOLARQUE on display in Los Alcazares (Murcia Province).

*J-C Salmerón*





Two views of the October 2015 steam charter in western Ukraine with L3535 and three coaches carrying the Soviet era green livery.

*Ad van Sten*

## UKRAINE

The announcement of a steam charter in the Ukraine was already a big surprise; the fact that three green passenger coaches were available was completely unexpected. The repainting was arranged by Wolfram Wendelin, the organiser of the train. On 22nd and 23rd October the impressive L 3535 ran with these coaches from Kolomyja through the Carpathian mountains to Rachiw, not far from the border with Romania. The tour was a big success.

The 2-8-0 class L was a further development of the Soviet Railways SŽD class FD. The design came from the construction department of the Kolomna locomotive works. On 5th October 1945 the first engine was ready for inspection. At first the class was named П32 and the first engine received number П-0001, where П (P in the Latin alphabet) stood for "Победа" (= Pobeda = victory). The locomotives proved to be very reliable and the design team of chief construction engineer Lew Lebedjanski was rewarded with the Stalin prize. This was probably the reason that the Soviet Party decided to rename the class as "Л" (L).

It was the most numerous locomotive class of the SŽD. Between 1945 and 1955 as many as 4199 locos were built. They were produced by three locomotive factories: Kolomna (1762 engines), Luhansk (2048) and Brjansk (389). Each of these works had its own numbering system, which meant that the locomotives did not have sequential numbers. The last locomotive was number Л-5307.

*Ad van Sten*

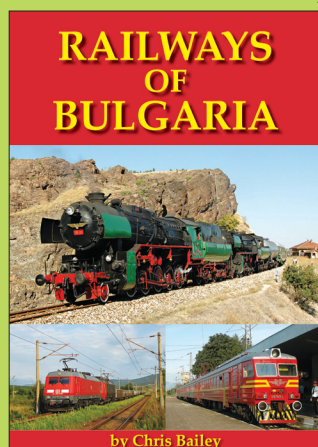




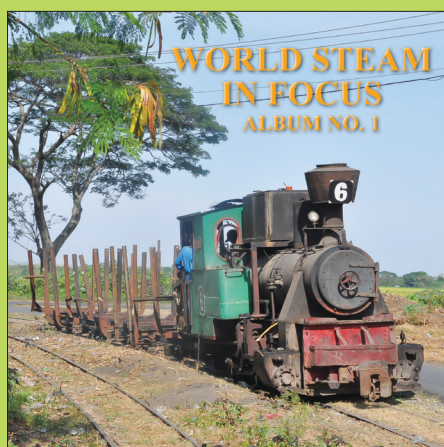
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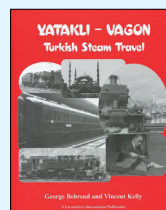
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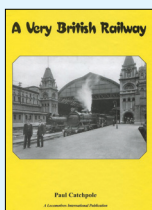
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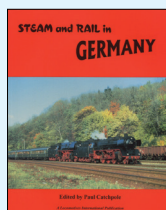
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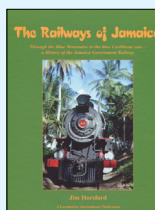
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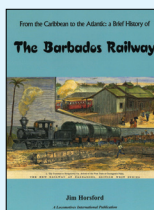
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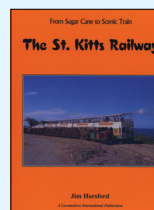
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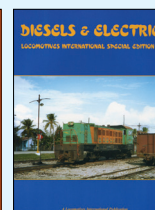
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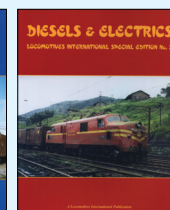
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# SPAIN AGAIN!

by Allan C Baker



**Above:** In *Locomotives International* No 92, I described and illustrated a trip to Spain in 1974, organised by the Industrial Railway Society, visiting locations with industrial steam locomotives. The following year the Society organised a second trip that took place between 11 and 17 May and while on the 1974 trip we flew to Bilbao, on this occasion the flight was to Barcelona. There we were due to take the 1620 train to Mora la Nueva, to make a six minute connection for Caspe, where we were to stay the night, handy for the following day's visit to the Ferrocarril Andorra-Escatron. We knew that the last remaining working RENFE (Spanish National Railways) steam locomotives were 141F class 2-8-2s working from Mora la Nueva, in connection with some seasonal fruit traffic, although they were due to finish any time. By a bit of a rush, Fred Pugh (once again the party leader) and I were able to get an earlier train which allowed a visit to the shed at Mora la Nueva, where this first photograph was taken. Unfortunately, we were a just too late to see any locomotives in steam, although the first two engines in this line up, 141F2416 (Euskalduna 375 of 1960) and 141F2411 (Euskalduna 370 of 1960), were still warm with water dripping from the injector overflows. The Shed Master told us they were the last two to have been used, having finished work the previous day! There were several other members of this latter day Spanish design in and around the shed having already been withdrawn. No fewer than 417 locomotives of this class had been built by various builders between 1953 and 1960, the first 25 in this country by North British and 2416 was the penultimate member of the class. Apart from the North British examples, all the rest were built by Spanish firms. The remainder of the party of course, in the dark and with a six minute connection, missed it all! Fred and I were on somewhat tender hooks as in our haste to get the earlier train, we had left our luggage on a platform trolley with that of our colleagues and we hoped they had had the foresight to bring it along – they did, bless 'em!

**Upper Right:** The Andorra-Escatron Railway, broad-gauge, was just over 31 miles long having been built to move coal from the RENFE mainline at Andorra to a power station at Escatron in Teruel Province. The staple motive power were three rather splendid and very large - massive might be a better term - 4-8-4 tank engines which, strangely in view of the traffic, were oil burners. Built especially for the railway, this one is ANDORRA, built by the German firm of Arn. Jung, number 11467 in 1953, working empties to Andorra while running alongside the Rio Ebro.

**Lower Right:** Two of the three engines were in steam and this is the other one, a somewhat different design and named SAMPER De CALANDA. It was built by the Spanish firm of La Maquinista Terrestre y Maritima of Barcelona, number 721 of 1958. Notice the shorter side tanks and typical Spanish smokebox door and deflectors. The third engine was another Jung. We witnessed several train movements on the line, loaded and empty and the ease with which these machines handled the trains was quite impressive.

*All photographs by the Author*









**Top:** For shunting around the power station the railway had this delightful Baldwin 2-6-0 tender engine, coal fired notice, number 53437 of 1920, with the fleet No 1 and as can be seen, kept in rather nice condition. It arrived here second-hand, probably when the line opened in 1953, having previously been with a company in Valencia. I have often wondered why this power station was situated where it was, as it seemed to be in the middle of nowhere, compounded by the need for a 30 mile haul for the fuel. One would have thought it would have been cheaper to run overhead power lines from a power station built where RENFE delivered the coal!



**Centre:** Our next visit was a day on the well-known FC Ponferrada-Villablino, a delightful metre-gauge line almost 39 miles long from Ponferrada, where connection was made with the RENFE line from Leon to Orense, to serve coal mines in and around Villablino. Dating from 1919, via an associated company, Minero Siderurgica De Ponferrada SA, broad-gauge locomotives were used for shunting at Ponferrada, along with working traffic to a briquetting works. On the visit the working engine was an 0-6-0 which had the appearance of being a pannier tank, although the tank was supported from the frames, rather than via straps over the boiler. Built by the Belgian firm of Haine St Pierre, number 1382 of 1922, it had been delivered here when new and carried on the buffer beams, the designation MSP 51, although as can be seen, it had lost its builder's plate.



**Bottom:** The metre-gauge railway operated two daily passenger trains each way, from Villablino in the morning, returning in the early afternoon, with another return trip in the early evening – they were known as the *Correo*. For these trains one of these rather nice Engerth, semi-articulated locomotives was kept in somewhat smarter condition to its numerous stable mates and on the occasion of the visit, it was No 31. Built by the German firm of Maffei, number 3350 of 1913, it is seen here on the morning trip to Ponferrada, passing en-route at a single-line passing loop, another Engerth on an empty train heading towards Villablino. The engine on that train was a more recent example, No 15, built by the Spanish firm of Material y Construcciones de Valencia (Macosa), number 150 of 1956. The Engerth locomotives of which there were no fewer than nine, while ostensibly of a 2-6-0 wheel arrangement, had four-wheel tenders articulated to the main frames, such that part of the tender's weight was transferred to the locomotive to increase axle loading and thus, adhesion. This railway was the last wholly steam worked narrow-gauge line in Spain.



**Top:** The other staple power on the line was a series of these Baldwin 2-6-2 tank engines and this one is No 5, maker's number 52658 of 1919, in fact all nine were built in that year. With the name VILLABASO, it is seen here shunting at Villablino, although the class shared mainline duties with the Engerths.



**Centre:** At the Hulleras De Sabero y Anexas SA Sabero Colliery in Leon Province, we found two delightful metre-gauge locomotives, clearly illustrating the difference in design characteristics between British and continental builders. Here is the British example, No 10 EL ESLA, from Sharp, Stewart & Company, when it was still based in Manchester, number 3343 of 1885. Typical of the builder, a rather neat six-coupled side tank that had started life with the FC de Carinena a Zaragoza, which had six of these engines, all built in 1885.



**Bottom:** Its partner was this 0-6-0 side tank No 11 CISTINERNA and while we have no knowledge of its builder, it is clearly of continental origin. It was rebuilt in the colliery workshops in 1945, having arrived second-hand sometime earlier, but from where we know not. Don't they make a nice pair?







**Top:** After flying down to Huelva the next visit was to the sorry remains of the extensive four-foot gauge railway of the former British Tharsis Sulphur & Copper Company, where over the years a fleet of some 50 odd steam locomotives had operated. I have never understood why such an unusual gauge was chosen for this railway! At Corrales, near Huelva, the seaward end of the 50 plus mile line to the mines, we found out of use, one of the first engines the company owned, hence we presumed, its survival. It was one of 10 Dubs of Glasgow 0-4-0 side tanks built in 1867 and 1869 and the first numerically, fleet No 1, named ODIEL, after the river where the company had its pier and facilities to tranship the minerals to sea going ships. The maker's number was 231. Behind can be seen one of the later six-coupled side tanks, some of which came from Dubs and later ones from its successor, the North British Locomotive Company, one of which is the subject of the next photo.



**Centre:** At the mines themselves, very much out of use was No 29 ALJARAQUE, the first of the North British examples, maker's number 16208 of 1904. This locomotive had been fitted with the vacuum brake - that is part of the pipe work over the buffers - presumably for line working. One of the conditions of the concession to build the railway, which dates from 1867, covered operation of a passenger service.



**Bottom:** Also found at the mine was another of the Dubs four-wheel side tanks, No 7 CORRALES, which had been officially preserved along with a home-made tender and a rather splendid coach, probably one used for officials and visitors when travelling on the railway. The locomotive was Dubs number 332 of 1869. This ensemble, along with ALJARAQUE, was pulled out of the shed for photography by the diesel in the next illustration.





**Above:** No 60 LA ZARZA, was a solitary member in the fleet of this North British 400 horsepower 0-6-0 diesel-hydraulic design, number 27403 of 1956, at that time a standard product of the builder.

**Below:** The Port Authority at Huelva, Junta De Obras Del Puerto (JOP), had a fleet of locomotives, both steam and diesel. However, by the time of the visit they were all out of use as RENFE had some two years previously, taken over all the port shunting duties. This is one of the four steam locomotives stabled in the shed, a Borsig four-wheel side tank No 4, maker's number 6023 of 1906. The other three although built by Orenstein & Koppel, were of the same type and judging from various numbers members of the party found on motion parts, there had been quite a lot of interchanging of components between locomotives.







**Top:** The other large railway system in that part of Spain was in connection with the well known Rio Tinto mines, another former British company, but by the time of the visit Spanish owned; the Compania Espanola De Minas De Rio Tinto SA. The railway here was of yet another track gauge, in this case 3 feet 6 inches and some 52 miles long from the mines to Huelva. As was the case at Tharsis, the railway system had seen better times although we did find some engines in steam. Standing outside the shed at the mine were these two, although neither did any work, apart from being brought outside for photography, while the party was there. On the right is one of the numerous Dubs and later North British Locomotive Company six-coupled side tanks, 44 of the class having been supplied between 1880 and 1908. They were reduced in height as some of the duties took them through low headroom tunnels within the mine. The one here is fleet No 51, Dubs 1890 of 1883. On its right is one of five Robert Stephenson & Hawthorns (RSH) 2-6-0 tender engines built in 1953 and 1954, for work on the mainline and the last steam locomotives delivered to the railway. The one shown here is fleet No 201, maker's number 7700. Of the numerous other locomotives at the mines, only two more of the Dubs engines were in steam although, like the two locomotives illustrated here, we did not see them do any work.



**Centre:** Outside the opposite end of the shed a few locomotives had been put aside, ostensibly for preservation. They included this Hawthorn, Leslie 0-4-0 crane tank, of which there had been two. Fleet No 150, maker's number 3785 of 1930, a standard design of the builder. Some readers may be familiar with the similar engines that used to work at the Doxford Shipyard on the Tyne, although the Rio Tinto engines, in view of the track gauge, had outside frames. The design was unique among crane tank locomotive manufacturers, as the derricking movement of the jib was controlled by a steam piston in a cylinder at the top of the vertical circular firebox. There was therefore, no separate hoisting movement. Slewing was controlled by a small twin-cylinder steam engine mounted horizontally at the front of the slewing-bed; the small flywheel of this engine can be clearly seen.



**Bottom:** Among the other engines set aside for preservation was the one remaining 2-6-2+2-6-2 Beyer-Garratt, of which there had been two. This one, fleet No 146, Beyer, Peacock 6561 of 1929, was minus its leading pony truck wheels. The two Garratts were the mainstay of motive power on the mainline between the mines and the port of Huelva, until the RSH 2-6-0s arrived.



**Top:** A view inside the shed at the mines, a building that would have done credit to many a mainline railway. The row of engines from left to right consists of fleet numbers 85, North British 17075 of 1906; 114, one of the larger North British six-coupled side tanks, maker's number 18588 of 1908; 77, Dubs 4067 of 1900; 68, Dubs 2480 of 1889 with its centre pair of wheels removed and lastly number 48, Dubs 1513 of 1881. Over the years the fleet had consisted of some 150 plus locomotives, hence such a large shed which had seven roads, each capable of holding about 10 of the smaller locomotives. There was another large shed at Huelva with six roads, where the workshops were also situated. That was where the crane tanks would appear to have spent most of their time.

**Centre:** In the RENFE's disused roundhouse at San Jeronimo in Seville, there were a number of locomotives and other vehicles that had been set aside for possible preservation. Included among them was this Sentinel-Cammell steam railcar, RENFE number 9091, Sentinel 7604 of 1929. It had originally been supplied to the Zafra-Huelva Railway and was latterly used to carry railwaymen from San Bernardo station in Seville, to various nearby locations. This was the only railcar of Sentinel-Cammell design to have been used in Spain.

**Bottom:** Last but not least, a look at more modern RENFE motive power, one of the distinctive English Electric Co-Co 3,000 Volt electric locomotives built at the Vulcan Foundry. A fleet of 58 of these impressive looking machines with the maker's distinctive nose-ends, were supplied in the period 1952 to 1956. This one is fleet number 7715, EE number 1878 of 1953. They were powerful 3,600 horsepower locomotives and externally similar to others supplied by EE to Brazil, Australia and India. As can be seen, the photograph was taken at Santa Lucia, while the party's bus made a brief stop at an adjacent level crossing.





# RIDING THE ZAMBESI SAWMILLS RAILWAY

by David Thornber



It was early 1966. We had just moved to Livingstone, about six miles from Victoria Falls, working for the then Rhodesia Railways (RR), escaping to Zambia from the Rhodesian UDI with its sanctions. We regularly used to motor up Riverside Drive to witness the spectacular sunsets over the Zambezi River, with the hippos snorting in the water. En route we would cross a seemingly derelict 3' 6" railway, surely out of use. But one evening, at about 18.15, an apparition appeared in the shape of an RR 10th class 4-8-2, wood fired, with a long decrepit train behind it. Clearly this warranted investigation. On the other side of the main road to the RR station I discovered another station, that of Zambesi Sawmills, ZSM. It transpired that there were three trains a week departing at 18.00, destination the sawmill at Mulobezi, 100¼ miles to the North West.

I got to visiting the loco area regularly, where the train's then regular driver, Bill Henderson, retired from RR, pottered about with various jobs, and gleaned enough information to make a there and back trip in the 'first class' ex-RR carriage towards the rear of the train. With a friend visiting from England, I sallied forth on 8 July, 1966. 10th No. 154 (tender of 156) up front. No water, no electricity, but comfortable nevertheless, arriving at Mulobezi asleep in the small hours. I still have the return journey ticket (right), No. 23213, £1 16s & 3d, "You travel at your own risk"!

During the day we walked a mile back along the incoming track from Livingstone to a set of facing points when No. 154 appeared on a short train from the branch. This is the only time that I have thumbed a lift from a full sized train. It duly stopped

The 'apparition' much as the author first saw a ZSM train in the bush, a few miles out of Livingstone. Note 'telegraph poles', behind engine tender. 3rd July 1970.

*All photographs by the Author*

and gave us a ride back to Mulobezi!

The return trip that evening went as the outward one. In the train were two or three RR wagons of hardwood sleepers, a major product of the mill.

A couple of RR equipment inspectors approached me stating that they wanted to tour the Sawmills system looking for RR

*First class*

**ZAMBESI SAW MILLS (1948) LTD.** PASSENGER TICKET N<sup>o</sup> 23213

FROM Mulobezi

TO Livingstone

NAME 1 passenger FARE £1-16-3

DATE 9-7-66 For Z.S.M.L.

You travel at your own risk

L.M. 15282-80 10ks.—21/2/66 ZSM Ref. 105



property (e.g. tarpaulins) and could they borrow one of 'my' four wheel drive vehicles, used by 'my' signal technicians. I readily agreed, but requested that I accompany them. It would be a trial of one of the new Toyota Land Cruisers, newly arrived to replace ageing Land Rovers. We set off on 6th December. The terrain would normally be impassable at that time of year, but the rains hadn't yet arrived. There are no roads or even recognisable tracks to Mulobezi, and we opted to travel through the bush from Kalomo, 80 miles north of Livingstone. After checking at Mulobezi we pressed on to Vulomina, 80 miles to the North West, the present logging camp, where we stayed the night. Here were SAR 7th 4-8-0 no. 1006 and RR 7th no. 69 about to double head a raw log train towards the mill.

On the way back from Mulobezi we followed the line of the railway. This was only possible because the rains were late this year. Only two weeks later the river crossings were impassable. Needless to say these two preliminary sorties only wetted my appetite for a full 'there and back' journey by train.

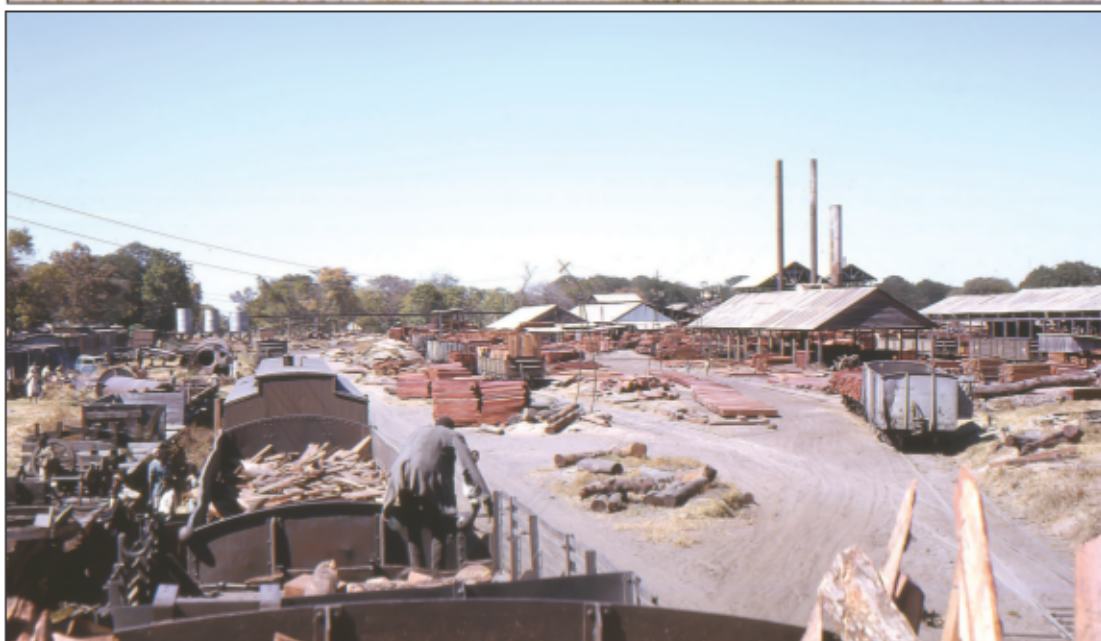
After agreement with ZSM I set off, Sunday 18th December 1966, on a four night footplate marathon to Vulomina and back. Apparently no 10th was available, so we had RR 9th, 4-8-0, No. 112. We had the usual consist of ZSR wagon for loco wood, empty RR wagons (full of rather wet people in the pouring rain, the rains had well and truly commenced, third class?), ZSM stores van,

RR carriages (2nd and 1st class?) and a service saloon and truck carrying diesel fuel for the machines in the forest. The latter two vehicles accompanied us all the way. We were handed a parcel, said to be urgently needed at Vulomina.

We arrived in Mulobezi, after a relatively routine run, at 01.30, that is if one considers a parting a few miles from Livingstone and returning for the detached portion as routine. I was told that this was relatively early, 02.00 being more usual, and often 04.00 or 05.00 hours. 100¼ miles, average 13.5mph. Not bad considering the max. is supposed to be 15mph (so I understand), what with the parting, water and passenger (one can hardly stay station) stops.

In the afternoon (15.40 on 19 December) we commenced loading wood onto the two tenders of 8th No. 76, (with tender of No.75), driver Larou, known as Stompie, a spitting image of Syd James. We also loaded an extra high sided wagon. We ran round the triangle and prepared our train. First the service saloon still with us, then a motley collection of empty high sided and flat bogie wagons for logs, and the diesel wagon at the rear. We had our precious parcel for Vulomina. At 16.40 we finally left for Pongwe Triangle and had shortly passed 'Points', a mile out, of my earlier visit's walk. I was riding on the tender, savouring the delightful smell of burning wood, idly observing that the big 2" or so diameter pin in the centre of the cab floor was gradually

Here we have two views of the author's journey along the line on 9th July 1966. The upper picture shows 10th No. 154 coming off the Kataba (Pongwe Triangle) line at the junction inspirationally named 'Points', a mile before Mulobezi. This is the train on which the author hitched a ride back into Mulobezi. The lower view is a general view of Mulobezi sawmill, taken from the tender of the train of No. 154 upon arrival.







working its way out. Stompie, with his Syd James grin, looked up at me saying:

'You know what that is?'

'No' I pretended.

'It is what's connecting me to you!'

One of the ten African firemen started hitting it with a sledgehammer. It looked as if if he hit it hard enough he might ring the bell and get a prize!

After the water stop at Machili 6¾ miles, and a passenger stop in the middle of nowhere, just a clearing in the bush, we pressed on straight as a die through the woods towards Pongwe Triangle, 59½ miles out, into the night. The threatening looking clouds finally let loose a deluge with spectacular thunder and lightning. These were the first rains of this season (usually November to March). We quickly had all ten firemen, plus Stompie and I, in the cab, practically immovable in the crush, like London Underground, but trying to dodge the drips through the rather leaky cab roof.

The fire died down, the pressure dropped to half. Finally Stompie said 'Somebody's going to have to go out and get some wood'.

We arrived at Triangle at about midnight. Three 7ths were there, SAR Nos. 1006, 1037, and RR No. 70 (interesting as No. 69 was out here about two weeks previously), having brought their loaded wagons from the woods. There followed in the night an almighty shunting operation to assemble these into the return train of logs for the mill, and three lots of empties, plus service saloon etc., to be distributed to the forest lines for loading, using only the triangle and one nearby branch line. The drivers discussed how to achieve this at length as if it had never been done before, when it was, in fact, a nightly operation. During this operation 1006 went to bring in our train, left on the approach line, failed to couple, and nudged it into motion. It ran perhaps half a mile back down the line before coming to rest. It took some retrieving!

I finally departed on engine 1006, pushing 7 high-sided wagons bound for Kamanga forests. We had no headlight and crept forward in the pitch blackness at walking pace, bearing in mind we were heading for hand worked facing points down the line. At around 4.00 we overshot our junction, backed up, and finally deposited the wagons down the forest line for loading.

**Above:** The loaded train of logs ready to depart from Vulomina on 20th December 1966. Note the dismantled house in the nearest truck!

**Below:** As dusk falls at the Kamanga B loading point, additional wagons are collected to be added to the above service. The nearest wagon contains firewood for the loco.





We reached Vulomina, about 20 miles from Triangle, 80 from Mulobezi, at 6.00, dawn just breaking. We handed over the precious parcel to the forest man there. He opened it, only to find a new sealed beam headlight for our engine! And we had struggled all the way from Triangle, and down to the woods, without use of it!

Vulomina was the present base 'camp' for logging (Njoko forest), but this area was almost worked out, so it was being dismantled and the houses and offices etc. either being abandoned or transferred to the next site (Kalomo forest, the other side of Mulobezi, a branch off the main line to Livingstone). The previous one had been Kataba, about 10 miles north of Triangle. One of the wagons on our return trip was loaded with a dismantled house. The empty service saloon that we had brought now contained a departing trackman.

On waking, after a much needed day sleep, I found Nos. 1006 and 70 waiting to depart with a loaded train of heavy logs and various service vehicles. We left at 17.40, just going dark, and overshot the now trailing points for Kamanga 'B', a few miles out. We backed up, left the load, and then down the steep grade of the branch to pick up the loaded wagons there. Whilst there the empty tender of 1006 was filled by hand from wood stacked at the line side. This is what these 'forest' engines burned. Whilst this was underway the injector had been left running, and suddenly the engine 'primed', hot water being ejected from every orifice!

Once this was sorted out, we left at 19.40 up the steep climb to the 'main' line, both engines working hard. We stopped half way for a blow up. Once on the main line, we backed up to retrieve the Vulomina load and proceed towards Triangle. On the way, we dropped the load and went down Kamanga 'C' line to get water. Finally, on our way to Triangle we traversed what was known as 'Lucky Dip' at seemingly breakneck speed to ensure getting up the other side. A jerk informed us that the train had parted. Back cautiously to pick it up, bearing in mind the track worker (and wife?) was in the service saloon towards the rear. At

last, arrival at Triangle at 01.30.

At Triangle the equivalent conference to last night (but now with driver Lorenz in lieu of Stompie) to sort out the wagons, service vehicles and engines for their respective destinations. During this operation it was discovered that some of our train from Vulomina, including the track worker, was missing and 1006 was despatched to retrieve it. I had a fitful rest on No. 76 while waiting. It was interesting to note that a much needed corrugated iron sheet had been fitted since yesterday to deal with the leaks. At 05.00 a BRT (Barotse Transport) Leyland bus arrived with mail and 8 passengers, connecting with our train.

We finally left Pongwe Triangle, mp 59, at 06.40. The loco's two tenders were devoid of wood, and we proceeded by picking up wood from the track side, usually small logs that had fallen off passing trains. The men were adept at picking ones that would just fit through the fire box door. Due to minimal braking power we overshot a village stop near mp50 by about half a mile.

We were proceeding nicely on our way 'home' when a message came from over the top of the train; a log had fallen between two cars about ten cars back, better stop (mp44½). On walking back we found, mp44¾, a large log had fallen between two cars, breaking the vacuum pipe and now derailing the wagon, all four wheels of the bogie well off. I found that this log had gouged a trough in the Kalahari sand that passes for soil (and ballast) here for maybe a mile back, finally derailing the truck and parting the train here.

We connected a magneto phone, one man holding one lead onto the single telegraph wire and another man the other lead onto a running rail. Quite incredibly, considering the state of the line, we got through to Mulobezi, over 44 miles away, and summoned help. Whilst it wasn't actually raining hard at the time there was plenty of lightning about and it was fascinating to watch the men's arms twitch as the line picked up the strikes!

I also observed that the vacuum pipes were not connected at three places down the train, only the first ten being piped through

The various mishaps which befell the author's December 1966 return journey - (right) the wagon bogie, with rerailing ramps in place; (below) the derailed tender front wheel of loco 76 further down the line from Triangle; (below right) the detached tyre, pictured during the rerailing process.







to the engine. The driver had just left the large ejector on to create some vacuum, just drawing air through the pipe. Thus we hadn't detected the pipe broken off by the falling log.

Help would be some time coming. Meanwhile we had a go at rerailing ourselves, using ramps. Not easy with the engine about ten loaded cars away, with the danger of the rear bogie of the derailed car hitting the ramps. After several attempts, unbelievably, we made it. Bear in mind this is rerailing a very heavily laden car. This wood is some of the densest there is, it barely floats in water. We had completed the rerailing at 10.50, and were on our way after packing up, at 11.10, over three hours since stopping. Just as we were finished Mr Pretorius and fitters arrived, by Land Rover, to help!

We had several blow ups, and a passenger stop at 38¼ miles. I was riding on the tender when suddenly there was an almighty jolt, at 12.50, 31¼ miles. Examination revealed the front wheels of the bogie tender were off. A first attempt at rerailing using ramps was a miserable failure, the second pair of wheels hitting the ramps and derailling, leaving the whole bogie off. Pretorius turned up. We rerailed using jacks. On pushing the front axle over so the 'far' wheel was on the running rail we found that the 'near' wheel still wasn't! Closer examination revealed that its tyre had come loose and was say 3" off. Pushing the tyre over, we could then drop the wheel onto the track.

We decided to run the engine light to the only siding on the route, at Kabangwa (28½ miles), taking 30 minutes to 14.40. The tyre stayed in place, being effectively held in position by the track, but there was a distinct possibility of a further derailment, trapping the train, urgently needed by the mill, behind it. So we sent for the only other engine available to recover the train (complete with track worker at the rear!), the Livingstone train engine No. 112 at Mulobezi. At this stage I am ashamed to admit that I chickened out and returned to Mulobezi in the Land Rover with the fitter. Bear in mind it was about 15.00, I had had two 'days' poor sleep, and been up at it since 18.00 yesterday.

Once back at Mulobezi, after dinner with the Pretorius family, I slept in the Livingstone carriage from 17.45 to 05.30 the next day (Thursday 22/12). I understand 112 had returned with the

The main line train to Livingstone behind loco No. 112 crossing the Ngwezi River bridge on 22nd December 1966. We drove across this river, dry, by Land Cruiser, only two weeks before. This bridge has now been replaced by a new concrete and steel bridge alongside, with the original retained as a national monument.

train by about midnight and we had left Mulobezi at around 4.15. I awoke to an amazing scene, flood water as far as the eye could see in every direction, the track just two rails above the water. No way could we now have come this way by road vehicle! The usual train consist, with only one RR wagon of sleepers, product of the mill. Not much, considering this train is only three times a week, and these timber products are what it is all about. After the usual passenger and water stops we finally arrived in Livingstone at 12.15, six or so hours late.

I did have one more run to Mulobezi and back. Along with ZR's operations manager I was invited to the leaving party of a retiring manager of ZSM. We had a special daytime train consisting of a bulled up No. 156 along with a ZSM (ex-RR) carriage, a ZSM service saloon and our by now Zambia Railways (ZR) service saloon; on 24 August, 1968. The two service saloons looked rather incongruous, theirs newly painted in grey, ours in silver. Both had previously been in the usual dull RR brown. The runs were uneventful. Once again sampling the delightful burning wood smell and hot embers from the chimney drifting down. I had quite a few holes burnt in my shirt on the various trips, only becoming aware on feeling the burn!

The sawmill closed in 1972. ZR was charged with maintaining a public service to Mulobezi, some remnant of which runs to this day, with at least one train a week. I had one more attempt to get to Mulobezi, in a Geoff's Trains tour of 1994. ZR 12th No. 204 ran out of water at km post 96½. So I never did get to Mulobezi. We were rescued by a diesel the day after. But that is another story! Quite a bit of work had been done on the line, including a new concrete/steel bridge at Ngwezi and lots of steel and concrete sleepers in place. So the line at least lives on, but without those delightful wood fired logging trains!



We close with three views of the occasion of the General Manager's retirement special in August 1968. The upper picture is of 'bulled up' ex-SAR 7th No. 955 at Mulobezi on 25th August. The centre view, taken the previous day, is of the special from Livingstone to Mulobezi taking water at Simonga tanks, 10½ miles. The loco is 'bulled up' 10th No. 156. Note the garish ZR service saloon at the rear. The front carriage is a usual first class one from the service train - note the centre 'safe' doors for secure transport, e.g. cash. The lower picture is of the same train at Kalamba, the second watering stop.





# PARAGUAY SENTINELS : THE END & THE BEGINNING

by Ian Thomson-Newman



The idea of using Sentinel railbuses was first mooted in 1929 but nothing definite was done until three such sets were ordered, probably in 1934. As stated in LI88 this was part of the FCCP's reaction to a government funded road building program (which was initially considered to feed traffic to the railway, but which ended up building up competition to it). With two Sentinels in service, a half-hourly frequency would have been able to have been offered between Asunción and Luque, which would have competed well enough with the buses. But the seating capacity of each motor car plus trailer unit was only 144, meaning that the Sentinels would probably not have provided a satisfactory answer to the capacity problem prevailing in 1936, at least not at peak periods. However, this problem solved itself, since after that year ridership fell back faster than it had risen previously.

## The end

In *More South American Sentinel Survivors* in LI88, I stated that I could remember having seen, over the years, demotorized Sentinel power cars parked at various points along the Paraguayan Central Railway's (FCCP) main line. I have now rediscovered a negative of the last time I saw such a vehicle, in the yard of the Sapucay workshop on 16th October, 1992 (see *photo above*).

The Sentinel was some way through a process of being ripped to pieces, already lacking its roof and parts of its back end and left hand side. It had been converted into a 2nd class carriage, numbered 101. This number does not tie in with anything on any FCCP rolling stock list that I have been able to locate, but there is little doubt that the carriage was once a Sentinel power car. One can discern, at the front end, the compartment which once housed the steam-powered engine. The Sentinel is hemmed in by two Hawthorn, Leslie-made 2-6-2Ts, the one on the right being No. 2 and that in front of it probably being No. 5.

## The beginning

A suburban service between Asunción's Central Station and Luque, at Km 15, was established, on a trial basis, on 15th November, 1929. It was well received by the public and proved to be profitable, hence being continued. The number of suburban passengers soared in subsequent years (see *table right*). This was in spite of the Chaco War, with Bolivia, which broke out in 1932, following skirmishes in the disputed border area and troop mobilization from 1928 onwards. The War ended, in Paraguay's favour, in 1935.

The suburban trains were made up of up to four carriages, which often ran full with passengers. Traffic continued to increase in 1936 when around 2 881 passengers were being carried daily per direction per working day. A train of four carriages would have been able to seat no more than around 400 people and hence, even were there to have been five trains per direction, some passengers would have had to stand.

The investment in the three Sentinels, with their Cammell trailers, amounted to £ 25 447 0s 2d, this sum being more or less equal to the Company's annual profit in the mid-1930s. (The Company had continued to report operating profits throughout the 1930s, in spite of the worldwide economic depression and the Chaco War.) They were placed in service in December 1935, and were stated as being very much more economical to operate than regular steam trains and that an extension of their sphere of operation, to rural areas, was being considered. However soon afterwards, on 1st September, 1936, the Sentinels were withdrawn, the reasons given being a fall in ridership on the suburban service and an increase in the cost of their fuel. (The FCCP's locomotives burnt wood, whereas the Sentinels were oil-fired.)

The Sentinels remained out of use during 1937 and 1938, but were returned to service in 1939, operating between Asunción and Ypacaraí, which is at Km 44. In 1950 they were still on the books as "coches motores", i.e. self-propelling railbuses, and trailers, but I do not know where, or if, they were operating. The full early history of the Paraguayan Sentinels has yet to be revealed.

FCCP suburban passenger traffic, 1933-40	
Year	Passengers
1933	608,231
1934	947,155
1935	1,507,211
1936	1,872,793
1937	1,292,866
1938	1,089,471
1939	658,504
1940	784,468
Source: FCPCAL files, Asunción.	



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 LCGB - Locomotive Club of Great Britain. Contacts vary dependent on tour selected - see website [www.lcgb.org.uk](http://www.lcgb.org.uk)  
 PTG - PTG Tours, Boston House, Grove Technology Park, Wantage, Oxon. OX12 9FF. 01235 227288 [www.ptg.co.uk](http://www.ptg.co.uk)  
 RTC - Railway Touring Company, 14a Tuesday Market Place, King's Lynn, PE30 1JN. 01553 661500 [www.railwaytouring.net](http://www.railwaytouring.net)  
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# BACK TRACK



## World Steam in Focus, Issue 99

*Tim Edmonds writes:*

It's a great centre-spread picture in *Locomotives International* Issue 99, but the caption incorrectly describes the location as "the Solkan viaduct". I believe that it shows the viaduct over the Isonzo on the former Südbahn line between Gorizia and Cormons. The Solkan bridge is upstream in Slovenia, where the same river is known as the Soča. It is on the Bohinj line of the kkStB (kaiserlich-königliche Staatsbahnen) opened in 1906 and, with a span of 85 metres, is the largest arch bridge in the world constructed of cut stone blocks. It is also notable for having been built twice. The first bridge was constructed under the Austro-Hungarians; it was destroyed during WW1 on 8 August 1916 but was then rebuilt by the Italians in 1925-7 after post-war boundary changes put it in Italy. Further boundary changes after WW2 put it in Yugoslavia and then Slovenia after independence in 1991. I took the photograph above from the nearby road bridge on 26 May 2008 and it shows well the famous emerald-green colour of the Soča.

## A North British Expat, Issue 99

*David Rollins writes:*

The following seven members of the R class are all preserved, and with one exception are all in Victoria – R 700/704/707/711/753/761 & 766. To commemorate the 30th anniversary return to service of R 707 a special train was run on 19th July with the three operational R class, Nos 707, 711 & 761 hauling it. R 766 is currently undergoing a major overhaul on a private site in Rothbury, New South Wales and has been re-gauged to 4' 8½".

## Archive Threesome - Dargai, Issue 99

*David Bathurst writes a 2006 Postscript:*

I read Keith Chester's article with keen personal interest, not least because I made my first of twenty visits to Pakistan in November of 1982, a fortnight or so before Keith! Fortunately, the Khyber Pass was open at the time of my visit. Despite travelling

extensively (and at some risk) throughout Pakistan on subsequent occasions, I failed to travel on the Nowshera Jct. – Durgai branch before its closure to passenger traffic. Just as with the demise of steam in the UK, there seemed to be a measure of permanence in Pakistan, enabling visiting enthusiasts to simply "leave it to the next time". I hope that Keith will forgive me for referring to "Durgai" in place of "Dargai", but reference to timetables of the 1980s, together with an official map dated 1984, suggests Durgai to be the correct name,

In October 2006 I made a visit to Pakistan to travel on one of the "Khyber Steam Safari" trains operating quite regularly at that time, and following a 2-year negotiating period through friends with influence within Pakistan Railways (PR), I managed to arrange a trip with the daily goods train along the Durgai branch the preceding day. This involved PR retiming the departure from Nowshera Jct from 3am to 9am, to accommodate the travelling time by road from Peshawar. However, upon arrival at Nowshera, there was no sign of the train. Enquiries of the Station Master, who spoke no English, elicited the fact that I was expected the following day (the day of the Khyber Pass visit) and that the goods train had left at its normal time of 3am.

In Pakistan, one learns very quickly the true meaning of the term "inshallah", and in this instance there was little point in moaning or complaining about wasted travel etc. The SM graciously arranged refreshments (despite it being the month of Ramazan), a tour of the station and its yards and sidings, seemingly to kill time. My travelling companion and I spent about an hour and a half simply keeping out of the heat, until a series of phone calls concluded with our being invited to "join your train" at the platform! Unbelievably, the SM had managed, entirely unknown to us, to secure the availability of a light engine (diesel, no. 8057) together with crew and a couple of other PR personnel.

The journey up to Durgai took approx. five hours, including a lengthy wait at Mardan Jct to cross the returning goods train. Throughout the journey, I acted as Second Man on the loco. Departure from Mardan was quite exceptional, as immediately the locals had observed the passing of the daily goods, they immediately set up a market across the tracks, having no reason to expect the passage of a second train. Working on the principle that the stall holders were simply "trespassers" the driver



simply ignored the piles of produce, stall covers and the like, with interesting results. Moreover, with the locomotive moving in hours of daylight with high temperatures, a number of low-hanging telephone lines bit the dust en route to Durgai.

During the ensuing journey, we picked up a couple of vans, containing mainly farming materials, fertilisers especially, to be delivered to those stations on the line which still remained open to goods traffic. Our light engine movement had been converted to a revenue operation. Interestingly, certain station staff re-appeared at successive stations, having travelled between them by road. By this time they had seen what was happening, and at the penultimate stop, our departure was heralded with detonators (fog signals) – a truly emotional moment for me. Return from Durgai to Peshawar was by car.

## El Berrón, Issue 99

*John Bennett writes:*

2606, the FEVE DMU vehicle pictured, has not been sent to Barcelona, nor was it converted to run on LPG at El Berrón. The vehicle is part of a project to convert a 2-coach DMU to run on Liquid Natural Gas (GNL in Spanish) and the work is being undertaken at the ARMF workshop in Lleida which is where the vehicle was delivered when it left El Berrón. Two un-electrified FEVE branches have been chosen for trials when the work is complete, (a) the 10 km freight only branch from Matallana to La Robla and (b) the 20 km of line between Trubia and Baiña. I have been sent some pages of an official-looking document dated 12th March 2015 which claim that the work should have been completed and the trials begun in four months. To find these pages, try Googling "Tren FEVE con GNL", take the first webpage you are offered and start reading at p.17. It's in Spanish but there are diagrams, photos and maps. The beginning of the document is no less interesting as it describes the attempt to convert 3411, one of FEVE's "Fabiola" tramcars, to run on hydrogen gas (the experiment was a failure and the unit is dumped at Pravia).

## Readers' Reports - Ecuador, Issue 99

*Mark Enderby writes:*

The ex-FEVE locos aren't named. What has been identified as their names was in fact their locations (*Ed. - My mistake, sorry!*)

## Around the Continents - New Zealand, Issue 98 & subsequent Back Track

*Robert Sweet writes:*

The difference between the New Zealand and South African wheel profiles is the wheel flange back to back measurement, this dimension has to be increased by 6 mm, which entails taking 3 mm off each wheel. If this is not done the wheels could ride up on the turnout check rails. The South African railways wheel flanges are thicker than the New Zealand wheel flanges. After making this change the wheel's tyre has to be re-profiled.

## Lost Treasures of the Philippines 3: Don Pedro, Issue 98 & subsequent Back Track

*Uwe Bergmann writes:*

The loco pictured on P64 of LI99, is definitely No. 8 of the Don Pedro Mill. It is the same engine on page 13 of LI98. According to the Henschel Works List, loco No. 20753 of 1926 was delivered via Koppel to the Philippines. I think the loco went directly to the Don Pedro mill and not to another customer beforehand.



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## Argentine PS11 Class Caprotti Pacifics, Issue 85

*Ian Thomson-Newman writes:*

The December, 1996, edition of the Argentinian railway magazine *MDT Trenes* provides information on the Argentinian class PS11 Caprotti Pacifics, additional to that contained in Philip Atkins's excellent article on the subject, published in LI85.

MDT states that the Caprottis could produce 1,700 drawbar horsepower whilst coal-burning, but that this fell by 200 hp when they were converted to oil. This was attributed to a lesser draft on the fire, for which a solution was attempted by reducing the diameter of the blastpipe, which had the effect of increasing counter-pressure in the cylinders (I am not sure why the draft should have been lessened). Whilst still coal-burning, it is stated that they could haul 800 ton trains and attain 130 km/hr (but not necessarily performing both such feats at the same time). It is also stated that they ran 20,000 km per month. (Allowing for "shed days", to wash out boilers, etc, this would amount to 750 km daily. If the average commercial operating speed were 60 km/hr, this would equate to being in use, hauling trains, for 13 hours per day) Philip says that one locomotive once covered (the equivalent of) 22,300 km in a 30 day period.

Philip states that, on 5th March, 1939, Central Argentine No. 1118 averaged 65.7 miles/hr hauling 500 tons over the 188 miles between Rosario and Buenos Aires. The MDT article does not mention this, but it does say (translating): "In 1939, locomotive No. 1116, with train 2, "El Rápido" from Rosario to El Retiro, covered the 302.9 km in 2 hours and 50 minutes, at an average of 105 km/hr". (The Central Argentine's terminus in the city of Buenos Aires was at El Retiro) Could these statements refer to different versions of the same feat?

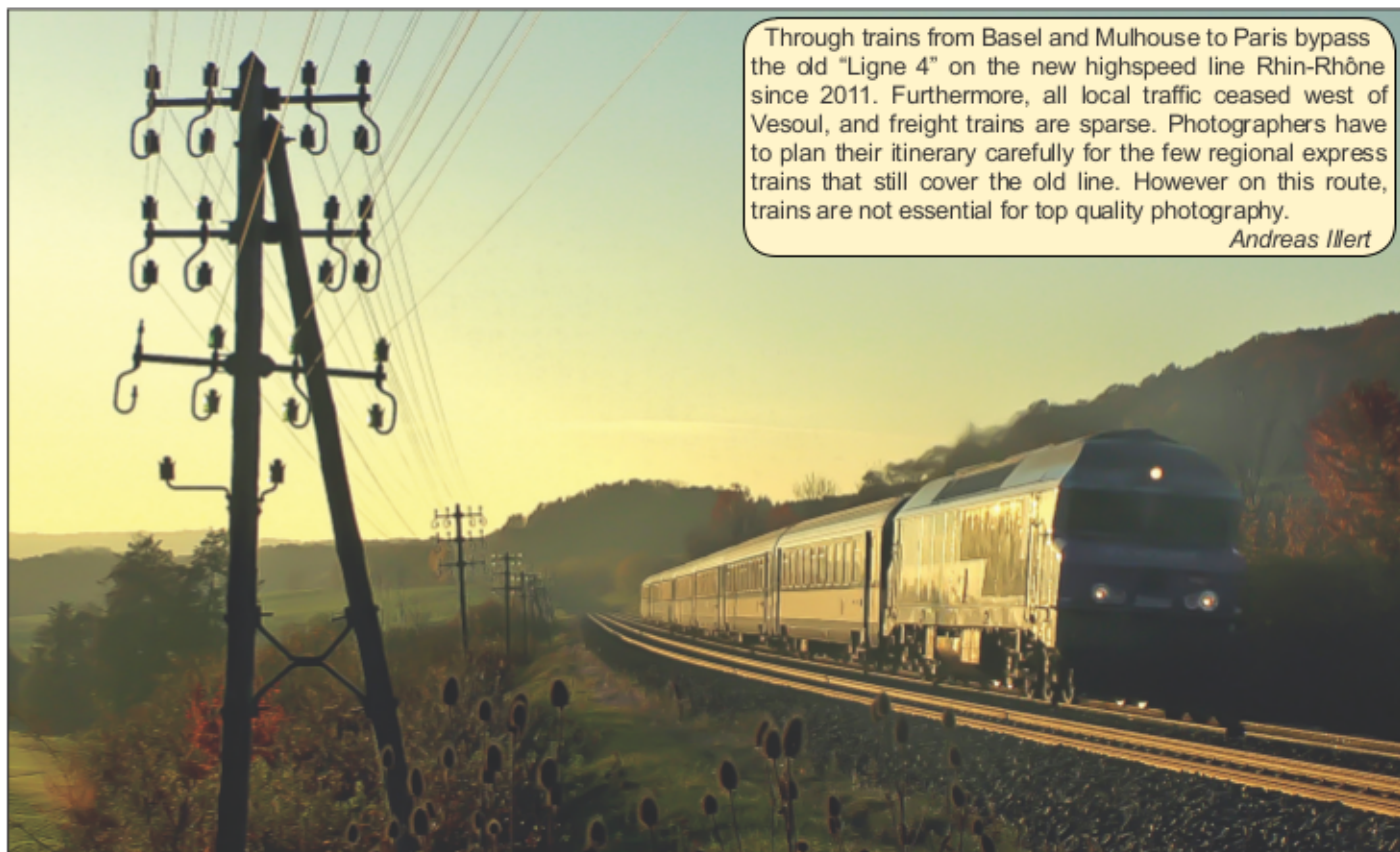


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*Andreas Illert*







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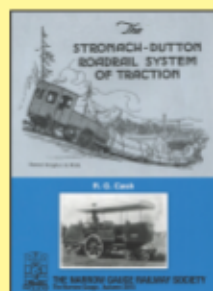
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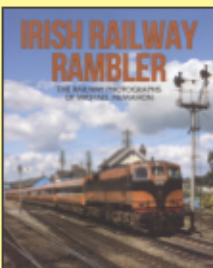
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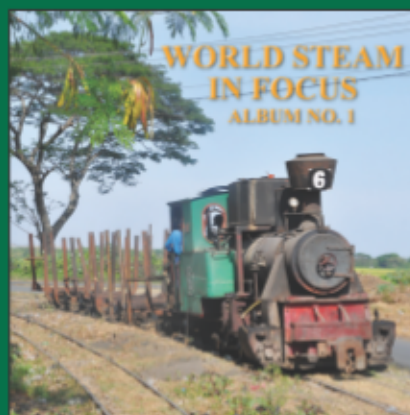


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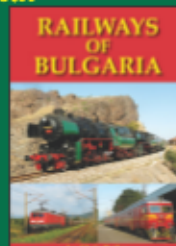
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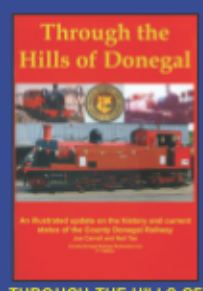


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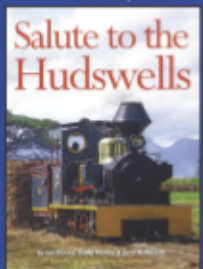
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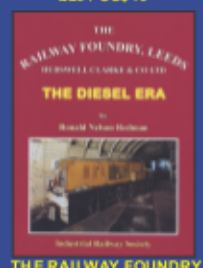
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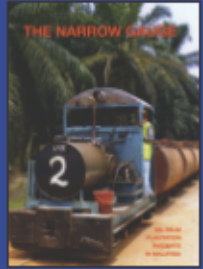
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